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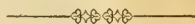


PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

TWELFTH SESSION, 1881-82.

First Meeting, 1st November, 1881.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.



THE following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Society :—Proceedings. Vol. XXXII. Nos. 213, 214. 8vo. 1881.

From the Royal Geographical Society :—Proceedings, and Monthly Record of Geography. Vol. III. Nos. 7 to 10. 8vo. July to October, 1881.

From the Royal Geographical Society :—Journal. Vol. L. 8vo. 1880.

From the Royal Geographical Society :—General Index to the fourth Ten Volumes of the Journal. [31 to 40.] 8vo. Lond. 1881.

From the Royal Geographical Society :—Classified Catalogue of the Library of the Royal Geographical Society to Dec., 1870. 8vo. London. 1871.

[No. xxvi.]

From the Geological Society :—Quarterly Journal. Vol. XXXVII. Parts 2 and 3. Nos. 146, 147. May and August, 1881.

From the Royal Asiatic Society :—Journal. Vol. XIII. Parts 3 and 4. New Series. 8vo. London. July and October, 1881.

From the Anthropological Institute of Great Britain and Ireland :—Journal. Vol. X. No. 3. Feb. 1881. Journal. Vol. I. 3 Parts. 1871-72. Vol. II. Nos. 1 and 2. 1872. Vol. VIII. Part 2. No. 25. 1878.

Completing the Society's set of their Journal from the commencement to the present date.

From the Royal Archæological Institute of Great Britain and Ireland :—The Archæological Journal. Vol. XXXVIII. Nos. 150 and 151. 8vo. London. 1881.

From the Palestine Exploration Fund :—The Quarterly Statement, July and October. (2 parts). 8vo. London. 1881.

From the American Oriental Society :—The Journal. Vol. XII. Newhaven. 8vo. 1881.

Proceedings at Boston. May 18, 1881.

From Walter Morrison :—The Massorah, compiled from Manuscripts alphabetically and lexically arranged by Christian D. Ginsburg, LL.D. Vol. I. Aleph-Yod. Folio. London. 1880.

From Prof. R. V. Lanzone :—Catalogo Generale dei Musei di Antichità e degli Oggetti d'Arte raccolte nelle Gallerie e Biblioteche del Regno. Serie prima. Piemonte. Vol. IV. Regio Museo di Torino, ordinato e descritto da A. Fabretti, F. Rossi, e R. V. Lanzone. Monete Consolari e Imperiali. 4to. Torino. 1881.

From the Author :—Dizionario di Mitologia Egezia, per Ridolf V. Lanzone. Prima Dispensa con XLVII Tavole. Torino. 8vo. 1881.

From Wyatt Papworth :—Narrative of a Journey to the Site of Babylon in 1811. Memoir on the Ruins, Remarks on the Topography of Ancient Babylon, Second Memoir on the Ruins in reference to Major Rennell's Remarks, with a Narrative of a Journey to Persepolis. By the late Claudius James Rich. Edited by his widow. London. 8vo. 1839.

From Wyatt Papworth :—Observations connected with Astronomy and Ancient History, Sacred and Profane, on the Ruins of Babylon, as recently visited and described by Claudius James Rich. By Rev. Thomas Maurice, A.M. London. 4to. 1816.

From the Author :—*Études Égyptiennes*. Tome I. 2^e fascicule. Étude sur quelques peintures et sur quelques textes relatifs aux feinéraires; le conte d'Apôpi et de Soknounri. Par G. Maspero. 8vo. Paris. 1881. Reprinted from the *Journal Asiatique*. 1880.

From the Author :—*The Egypt of the Past*. By Erasmus Wilson, F.R.S. London. 8vo. 1881.

From the Author :—*Une Nouvelle Inscription de Hammourabi, Roi de Babylone (XVI siècle avant J. Ch.)*. Par J. Menant. 8vo. Paris. 1880. Extrait du *Recueil de travaux relatifs à la philologie et à l'archéologie Égyptiennes et Assyriennes*. T. II, p. 76.

From the Author :—*La Bible et les Cylindres Chaldéens*. Par Joachim Menant. Paris. 8vo. 1880. Extrait des *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres*. 1879-80.

From the Author :—*Die Burgen und Schlösser Südarabiens nach dem Iklil des Hamadânî*. Von David Heinrich Müller. Zweites Heft. 8vo. Wein, 1881.

Aus dem Jahrgange der Sitzungsberichte der phil.-hist. Classe der Kais. Akademie der Wissenschaften (XCVII. Bd. III. Heft S, 955), besonders abgedruckt.

From the Author :—*La Croix Païenne et Chrétienne; traduction faite sur la deuxième édition*. Par Mourant Brock, M.A. Paris. 8vo. 1881.

From the Author :—*The Unicorn; a Mythological Investigation*. By Robert Brown, jun., F.S.A. London. 8vo. 1881.

From the Author :—*Descriptive Account of the Incised Slate Tablet and other Remains lately discovered at Towyn*. By J. Park Harrison, M.A. London. 4to. 1881.

From Joseph Offord :—*Koptische Untersuchungen von Carl Abel, Dr. Ph.* Vol. I. Part 2. 8vo. Berlin, 1877.

From T. G. Rylands :—*The Battle of the Standards*. By John Taylor. 8vo. London, 1864.

From the Publishers :—*Records of the Past*. Vol. XII. *Egyptian Texts*. 8vo. London, 1881.

The following has been purchased by the Council for the Library of the Society :—

Topography of Thebes, and General View of Egypt, &c. By I. G. Wilkinson, Esq. 8vo. London, 1835.

The following were nominated for election at the next meeting on December 6th :—

Dr. Carl Bezold, 34, Brienner Strasse, Munich.

David Burnett, 107, Fortess Road, N.W.

Hon. Charles P. Daly, LL.D., 84, Clinton Place, New York, U.S.A.

Aquila Dodgson, Limehurst, Ashton-under-Lyne.

George Carruthers Finnis, 13, York Terrace, Regent's Park, N.W.

Dr. Lucien Gautier, Professor of Theology, Lausanne, Switzerland.

Dr. Grant-Bey, The Sanatorium, Cairo.

Thomas Greer, M.P., F.R.G.S., Grove House, Park Road, Regent's Park, N.W.

Dr. William Lotz, 22, Bahnhofsstrasse, Cassel.

Dr. Alexander Macalister, The University, Dublin.

Dr. Eberhard Nestle, Münsingen, Wurtemberg.

Samuel Perkes, C.E., Larnaka, Cyprus.

Demetrius Pierides, Larnaka, Cyprus.

The Hon. George Shea, Chief Justice of the United States Marine Courts, 205, West 46th Street, New York, U.S.A.

Rev. William Saumarez Smith, B.D., Principal's Lodge, St. Aidan's College, Birkenhead.

Rev. Arnold Dawes Taylor, B.A., The Rectory, Churchstanton, Honiton, Devon.

Frederic Cope Whitehouse, M.A., Founder's Court, E.C.

Rev. A. F. A. Woodford, M.A., 25A, Norfolk Crescent, Hyde Park, W.

To be added to the List of Subscribers :—

The Department of Antiquities of the National Museum of Hungary, Buda Pesth.

DR. BIRCH thought that the Society would like to hear the discoveries at the Deir-el-Bahari, and that this most remarkable find of mummies should engage its attention. The site of the Deir-el-Bahari had been revealed by an Arab, and had no doubt been known to the Arab explorers for many years. By a shaft about 4 feet square and 25 feet deep, the explorers descended to a passage about 60 feet long, which was found strewn with coffins and other remains. These had been exhumed, and transported to the Museum of Boulaq, where they are now deposited. The coffins and mummies of the royal persons had been removed from other Theban sepulchres, especially those at the Dra-h-Abou-el-Neggah, where some of those found at the Deir-el-Bahari are known to have been originally deposited, as amongst them are the coffin and mummy of Taakan III, described in the account of the robbery in the days of Rameses IX, given in the Abbott Papyrus of the British Museum. The mummies of the XVIIIth dynasty were those of Aahmes I, of the same line, the monarch who drove the Shepherd Rulers out of Northern Egypt. This mummy, it was observed, had been placed in the coffin of a private person, and although it coincided with the description of the times, and the name of Amasis was said to be written on the hands and feet, it did not necessarily follow that it was the body of the king. His wife, known as Aahmes-Nefert-ari, was apparently an Ethiopian, and her mummy had also been found with those of princes and princesses of the family of Aahmes. The coffin and mummy of Amenophis I, successor of Aahmes, had also been found; also those of Thothmes I and Thothmes II; but that of Thothmes I had been occupied by Pinotem II, of the XXIst dynasty, and the mummy of Thothmes had disappeared. Thothmes III, the great Egyptian conqueror, who had advanced the frontier to Mesopotamia, and even possibly to India, as shown by his elephant hunts, was also found, but in so mutilated a condition that it is impossible to make out either his features or stature, and his inscribed shroud had also extracts of the Funereal Ritual, and not inscriptions of any historical value. An inscribed board of the same period also had religious inscriptions, and no historical ones were in the find. The body of Amenophis I had probably reposed in a tomb of the Deir-el-Bahari, but those of the Thothmes family had probably been originally in sepulchres in the vicinity of the Deir-el-Bahari itself; and up to the present moment the original sepulchres had not been discovered.

Some other mummies and coffins of the XVIIIth dynasty occurred ; but after Thothmes III none till the XIXth dynasty : the coffins and mummies of two early kings, Seti I, whose tomb was in the Biban-el-Melook, and whose coffin of alabaster is in the Soane Museum, also the wooden coffin and mummy of Rameses II or Sesostris, whose tomb and sarcophagus are in the Biban-el-Melook. The period of the removal of these mummies was in the seventh year of some monarch, probably Herhor, of the XXIst dynasty, and according to the hieratic inscriptions, is stated to have been caused by the fear of a foreign invasion : and the Assyrian conquest of Egypt by Assurbanihabla or Esarhaddon naturally suggests itself. No mummies or coffins of the XXth dynasty, but only some bones and other objects, were found ; but of the XXIst dynasty, at which period and for whom this mummy pit was made, several of the kings and princes were discovered : Pinotem II, with satyrriall features like Voltaire ; in the coffin of Thothmes III, with brown skin as if a mulatto or Ethiopian, other members of the family of Pinotem III, the king Menkhepera and his wife Hesiemkheb ; the queen Makara, with her deceased infant daughter, and various other mummies of the period. No mummies or coffins were discovered after this period.

The Rev. Henry George Tomkins read a communication on the Campaign of Rameses II, in his fifth year, against Kadesh on the Orontes.

For the homes of the various tribes allied together against the king of Egypt, Mr. Tomkins expressed the opinion that it was not necessary to seek far into Asia Minor, as had been proposed by some writers ; they might be thought to be found within narrower limits. Their names as given on the inscriptions were mentioned, with some identifications as to position and race.

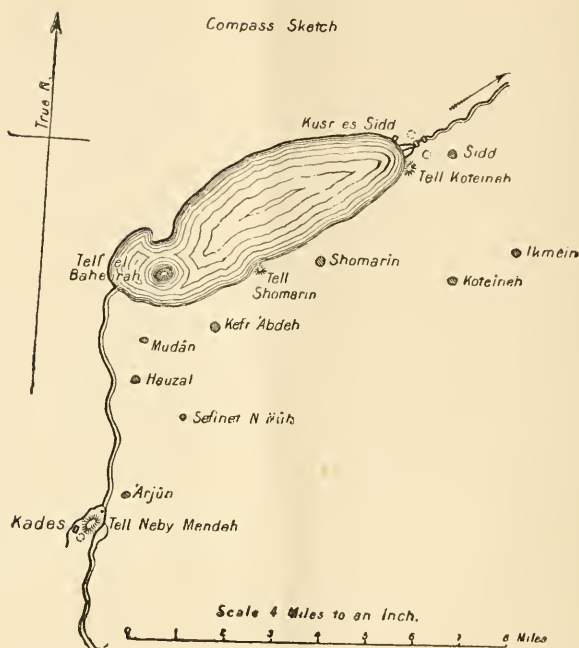
The position of the fortified Kadesh was next considered. The *second* pylon of the Ramesseum (Ross. M. R. cix-cx, Leps. Denk., vol. iii, 164) gives the Orontes flowing from the left into a lake which curves upwards, and then turns to the right, where the doubly-moated Kadesh stands on its island, with bridges above and below, the *lower* bridge being south, for the Kheta, shown there, crossed the *southern moat* (as the narrative says) to attack the brigade of Ra.

Below the river a straight embanked canal runs right across the picture. With these particulars agrees the tableau on the *first* pylon of the Ramesseum (Denk. III, 157-160), where we have the important addition of the point where the canal flows out of the Orontes at its east side, north-easterly in direction. In both pictures Kadesh must be at the north-east end of the long lake, which is at least five times as long as the island where Kadesh stands, and cannot represent a mill-pool 50 yards across with a Tell 400 yards long. It must be the Lake of Homs (formerly Lake of Kadesh); and in the sunken level about Saddeh, "behind Kadesh," and "to the north-west," as the Egyptian narratives tell us, a large force might lie unseen by Râmeses as he advanced from the south along the north-west side of the lake. This agrees with all the military movements depicted in the two battle-pieces of the Ramesseum, and in the colossal tableau of Abusimbel, which Mr. Tomkins explained in detail with drawings, map, and diagram, showing how, in his opinion, the ground north-west of Tell Neby Mendeh (Lieut. Conder's Kadesh) would be fully in view of the Egyptian army as they "crossed a ridge (as Lieut. Conder says), and descended into the plains *north-west of (his) Kadesh*," the very place where the great ambushade would have been laid, and the movements given would be quite inconsistent with this position. He therefore adhered to his supposition (expressed to Lieut. Conder before he left England) that "the fortified island with its double moat and bridges formed a part of the great engineering works at the northern end of the long lake, which included the great dyke holding up the waters of the Orontes, by which the lake was artificially formed."*

The route by which Rameses arrived at the place, with the cities he passed, were mentioned, and finally the events of this short campaign were traced. The various positions of the troops as represented upon the great battle-piece at Abu-Simbel, which covers an area of 57 feet in length and 25 feet in height, were pointed out and described.

* Palestine Exploration Fund "Quarterly Statement," July, 1881. For the use of the annexed sketch map of the Lake of Homs, explaining the identification made by Lieut. Conder, we are indebted to the kindness of Walter Besant, Esq., M.A., Secretary of the Palestine Exploration Fund.

LAKE OF HOMS .



The Rev. Wm. Wright agreed with the lecturer in limiting the area of the district from which the allies of the Hittites came. He had no doubt that the places mentioned would be found in the vicinity of "the land of the Hittites" when the explorers had thoroughly investigated that region.

He thought Mr. Tomkins had accurately traced the march of Ramses II from "Khetam in the land of Zar," to Kadesh on the Orontes, the chief town of the Khita. He had made excellent use of the material on which he was obliged to work, and had only failed to recognise "Tell Neby Mendeh" as the Kadesh of the Khitar, through the ambiguous way in which the name *Lake* was used in the Egyptian inscriptions. Lieut. Conder was correct in the spelling of Tell Neby Mendeh, and he was right in confirming Dr. Thomson's identification of that place with Kadesh (*see* "The Land and the Book," p. 110). Mr. Wright, after securing the casts of the Hamath Inscriptions, returned with Consul Green in 1872 to Tell Neby Mendeh, and found the name *Ketesh* well known.

The place answered perfectly to the Kadesh of the inscriptions. The lake at Tell Neby Mendeh is quite large enough to form an important feature in an Oriental battle-field, and the water may then have been raised much higher for strategic purposes. The proportions between the water and the fortified town are fairly preserved in the picture of the scene which illustrates the heroics of the Theban poet. He had no doubt that in the poem of Pentaur two lakes were referred to—the little Lake of Kadesh, around which the battle was fought, and “the lake of the land of the Amorites,” namely, the Bahr el Hums, in the vicinity of which a part of the Egyptian army must have been when the battle began. He pointed to Mr. Tomkins’ map drawn up on the hypothesis that the battle must have taken place round the great Lake of Hums, to show that the hypothesis was untenable. It was easy to overcome distance on a map, but supposing the crossing place at each end of the lake to have been eight or ten miles apart, the Khita chariots must have gone careering round a circuit of forty or fifty miles or more during the battle. Mr. Wright considered that Mr. Tomkins’ map showed—in fact proved—that the battle of Kadesh could not have been fought around the great lake. Mr. Wright regretted that he had been unable, through pressure of work, to supply Mr. Tomkins with facts when he wrote to him, but he congratulated him on the use he had made, without visiting the scene, of the slender evidence as to locality, and also on the interest he had awakened in a very remote and obscure incident.

Remarks were added by, Captain Cameron, Mr. T. Tyler, and the President.

The following Communication has been received :—

QUEENS COLLEGE, OXFORD,

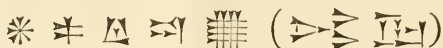
DEAR MR. RYLANDS,

Oct. 21st, 1881.

The Society may like to hear something about the newly-discovered cuneiform inscription on the northern bank of the Dog River, near Beyrût, an account of which has been sent to the *Athenæum* by Canon Tristram. The inscriptions have been uncovered by the Danish Consul, who has also taken photographs and squeezes of them. Through the kindness of Canon Tristram I have been permitted to examine the photographs, and I can therefore report something about their contents. The photographs, however, represent only the longest of the inscriptions, which is in four

columns, and only portions of that. Owing to the deplorable condition the original seems to be in, and the loss of many characters in the photographs from their being in the shade, it is impossible to do more than make out a word here and there. I hope that when the squeezes arrive we shall find them of greater assistance.

The photographs, however, are sufficiently clear upon one important fact, the authorship of the inscription. The forms of the characters are those in use in Babylonia in the time of Nebuchadnezzar, and as the general style of the inscription is that of Nebuchadnezzar's texts, I had little hesitation in ascribing it to the great Babylonian monarch. My conclusion was subsequently confirmed by my finding Nebuchadnezzar's name in the second column, where it is written :—



and is followed in the next line (as in the East India House Inscription) by the titles *ru-ba na-da*, "exalted prince." The first column seems to record the construction of some public work, perhaps of the ancient aqueduct close to which the inscription is found. I can make out the following words in it : "the rising sun"; *usalme*, "I caused to approach;" *riesu*, "the head"; *agurri aczur-va*, "the brickwork I put together, and"; *agurri*, "brickwork," again in the next line, and *abnu*, "I made," in the line after; "copper"; *si* and *sinati*, "it" and "them" (fem.); *lustalme*; *agurri* again, followed by *abnu* and *aczur* in the next line; "as far as Sippara." In the second column we have *mamis urdu*, "like waters they descended"; but as the light fell badly on this part of the photograph I can make out little more.

I heard of the existence of cuneiform inscriptions on the northern bank of the Nahr-el-Kelb last March from Dr. Hartmann, the dragoman of the German Consulate, but unfortunately I had just left Beyrût. As I stated in the *Academy* of May 21st, p. 373, I learned from him that a cuneiform inscription had been discovered there three or four years ago by the workmen employed in constructing an aqueduct. The stone containing the inscription was

cut out of the rock, and carried off by the 'Amir of Sîbnâ' or Sebnâya before it could be seen by any Assyrian scholar ; and as the 'Amir believes it possesses magical virtues, it is now kept jealously concealed from the scrutiny of Europeans. Above the place where this inscription was found, "another inscription containing about ten cuneiform characters still exists," said Dr. Hartmann, "on the face of the cliff." It must be this which the Danish Consul has now uncovered.

Yours very truly, A. H. SAYCE.

The following Communication has been received from Mr. Theo. G. Pinches :—

Amongst the collection of the British Museum is a small tablet obtained in 1876 from S. Ali Shan, of Constantinople. This tablet, which is said to have been found in Cappadocia, is in a very fair state of preservation, and is written in a rather rough and peculiar style, approaching very nearly to archaic Babylonian. No one, evidently, has ever tried to make out this text, most likely on account of the roughness of the writing, and the strangeness of the forms, and being only a contract-tablet, was thought unworthy of any trouble bestowed upon it.

During my recent stay in Paris, I was enabled, by the kindness of M. Babelon, to look over the collection of Assyrian and Babylonian antiquities in the Bibliothèque Nationale, and to copy a small tablet which attracted my attention by the peculiarity and neatness of its writing.

On examining it more closely, however, I found that the writing, though neat, was extremely difficult to read, and that, moreover, the language seemed to be neither Assyrian nor Akkadian. The shape of the tablet, which was about two inches and a half square, was exactly that of the little tablet from Cappadocia, the characters were in exactly the same style, though formed with a better instrument, and between each line of writing was a ruled line, which, as in the tablet in the British Museum, often cut off the top of one or more characters. Moreover, the clay was of the same colour. Being pressed for time, the copy of this interesting tablet which I made was, unfortunately, only a rough one. If I had known that the text was likely to be of any special value, I would have tried to spend more time over the copy. The text proved, on examination, to be a gift of silver to the sun-god.

An examination of the British Museum tablet showed that this also was written neither in Assyrian nor Akkadian. The number of ideographs employed, however, enabled an Assyriologist to see very easily that it was a contract-tablet, and, moreover, that the transaction was for twenty objects designated by the characters 𒂗 𒂗 𒂗 𒂗. The question very naturally was, what was a 𒂗 𒂗 𒂗?

Now it happens that, among the collection sent by Mr. Rassam from Kouyunjik in June last year, are two little report tablets, addressed to a king of Assyria, concerning certain consignments of Kusâa horses which the king was to receive, and amongst these appeared a kind of horse called 𒀭𒂗 𒂗 𒂗 𒂗 (ANŠU * KU-TIN-MEŠ)—the same word as is found in the tablet from Cappadocia, with the determinative prefix for a beast of burthen, and the plural suffix. This connection gave at once the key to the nature of the contract, and confirmed the information given on the label, stating that the tablet came from Cappadocia. Before going farther, however, it would be better perhaps to give a transcription and translation of these two Assyrian tablets.

I. 80-7-19, 25.

1. Ana šarri bêlîa *To the king my lord*
2. ârdi-ka Nadinu. *thy servant Nadinu.*
3. Lû-salîmu ana šarri *May there be peace to the king*
4. bêlîa. Adanniš, adanniš *my lord. Ever, ever*
5. (îlu) Nabû (îlu) Marduk *may Nebo (and) Merodach*
6. ana šarri bêlîa *to the king my lord*
7. likrubu *be propitious.*
8. viii murniskî† *8 horses*
9. Kusâa *(from) the Kusâa*
10. (nišu) abrakki *(for) the attendant*
11. nešâti ekalli† *of the women of the palace,*
12. xii murniskî† *12 horses*
13. Kusâa *(from) the Kusâa* *[the king,*
14. (nišu) abrakki ummi šarri, *(for) the attendant of the mother of*
15. xi murniskî Kusâa *11 horses (from) the Kusâa*
16. xlîx murniskî *(and) 49 horses*

* The value of 𒀭𒂗 𒂗 for 𒀭𒂗 is given on a fragment of a syllabary from Babylon.

† 𒀭𒂗 𒂗 𒂗 𒂗 𒂗 so throughout the text.

‡ 𒀭𒂗 𒂗 𒂗 𒂗 better perhaps "the woman-palace," that is "harem."

17. ša bathalli *which (are) stallions.*
 18. naphariš* LX[XX] murniški *Altogether 60 (80) horses.*
 19. ša (nišu) tartanu *From the Tartan*
 20. lâ gammarûni *geldings*
 21. ultu Kusâa *from the Kusâa*
 22. murniški *horses*
 23. bathalli *stallions*
 24. murniški *horses*
 [Edge] ûmu anniu êtarbûni *have gone down this day.*

II. 80-7-19, 26.

1. Ana šarri bêlia *To the king my lord*
 2. ârdi-ka Nabû-šum-iddin *thy servant Nabû-šum-iddin.*
 3. Lû-salîmu ana šarri *May there be peace to the king*
 4. bêlia. Adanniš, adanniš *my lord. For ever, for ever*
 5. Nabû Marduk ana šarri *may Nebo and Merodach to the king*
 6. bêlia likrubu. *my lord the king be propitious.*
 7. XIII murniški † mâţ Kusâa *13 horses from the land of the Kusâa,*
 8. III murniški ‡ şipte *3 young horses*
 9. ša mâţ Kusâa *from the land of the Kusâa*
 10. naphariš XVI murniški † ša nîri *altogether 16 horses of the yoke.*
 11. XIV murniški † ša bathalli *14 horses which are stallions—*
 12. naphariš XXX murniški † *altogether 30 horses.*
 13. IX ANŠU-KU-TIN-MEŠ *9 ku-tin—*
 14. [naphariš] XXXIX al Ķarnê *[altogether] 39 from the city Ķarnê*
 15. [v] murniški † mâţ Kusâa *[5] horses from the land of the Kusâa*
 16. [iv] şiptu ša murniški † *[4] young of horses*
 17. [mâţ] Kusâa *[from the land] of the Kusâa—*
 18. [naphariš] IX ša nîri *[altogether] 9 draught horses. §*
 19. XIV murniški † ša bathalli *14 horses which are stallions—*
 20. naphariš XXIII murniški † *altogether 23 horses.*
 21. V ANŠU-KU-TIN-MEŠ *5 ku-tin horses—*
 22. naphariš XXVIII al Dâna *altogether 28 from the city Dâna.*
 23. XIX murniški † Kusâa *19 horses of the Kusâa*

* . This sign, with the meaning *naphariš*, seems to be a short way of writing , which has that value in Assyrian.

†     

‡      evidently short for     .

§ Lit. "of the yoke."

24. xxxviii murniški * ša bathal 38 horses which (are) stallions—
 25. naphariš lvii al Kullania altogether 57 from the city Kullania
 26. xxv murniski * ša bathalli, vi anšu-ku-tin meš 25 horses,
 which (are) stallions, 6 ku-tin—
 27. naphariš xxxi al Arpadda altogether 31 from the city Arpad,
 28. la gammarûni geldings.
 29. xiii murniški * ša bathalli 13 horses which (are) stallions,
 30. x anšu-ku-tin-meš 10 ku-tin horses—
 31. naphariš xxiii al Isana altogether 23 from the city Isana.
 32. [Edge] [Naphariš xlvi] murniški* Kusâa, civ murniški* ša bathalli
 Altogether 44 horses of the Kusâa, 104 which (are) stallions
 33. [Naphariš] cxlviii murniški, * xxx anšu-ku-tin-meš—naphariš
 Altogether 148 horses 30 kutin horses—altogether
 clxxviii êtarbûni
 178 have gone down.

We will consider the second tablet first. It will easily be seen that it is a question of 178 horses, divided into three classes,—Kusâa-horses, horses of Bathal, or which are *bathal* (stallions?), and     which are kept as a half-distinct class; and these animals were from the land of the Kusâa, and had been sent from the cities Karnê, Dâna, Kullania, Arpadda, and Isana. What it is now needful to find out is, where is the land of the Kusâa, and the five cities mentioned in connection with it.

Now the city of Dâna is given by Xenophon ("Anabasis," book i, ch. 2) as the name of a town in Cappadocia, now bearing the name of Kizhisâr, and Arpad is the well-known Arpad of the Bible. Kullania and Isana are probably named in the order of their distance from Assyria, so that the former is most likely some distance north of Arpad, and the latter the nearest station on some ancient high-road to Assyria, while Karnê is likely enough a town in Cappadocia,† westward of Dâna. All these towns must therefore have been halting-places for caravans, &c., journeying between Cappadocia, or Armenia and Assyria. The situation of the Kusâa is not so well fixed by these horse-tablets. We are told, however, that Solomon, as well as the kings of the Hittites and Syria, were supplied with horses and chariots from the land of Egypt.‡ These

* 

† Mr. G. Bertin (to whom I am indebted for many facts and suggestions) has pointed out that this must be Corna, in Lycaonia.

‡ 1 Kings, x, 29.

horses from Egypt might easily have come originally from Ethiopia, and if so, the Kusâa must be identified with the people of Kush, the Kûsu of the Assyrian inscriptions, from which the word Kusâa would be quite regularly formed by the change of the *u*-ending into *-âa*; but it is more likely that Kusâa is the name of the people of Cappadocia itself.

Now as to the internal evidence of the tablet from Cappadocia itself, that also is confirmatory of this view. The tablet, as was before remarked, is a contract for “20 *ku-tin*—10 *kutin nama*, young *kutin*, and 10 *kutin Kusua*,” which two last words we may translate “horses (or mules ?) of Kusu.” Lower down the words “80 *kutin*” occur, and it is worthy of notice that the smaller tablet (that first translated above) mentions a number of horses which amount also to 80 (60 is the summation given by the Assyrian scribe, but this seems to be a mistake). These horses, or mules, were sold, so the Cappadocian tablet tells us, for $\frac{1}{3}$ of a mana and 5 shekels of silver.

If the conclusions that I have drawn from these tablets be correct, we have the following facts: that there was a close connection between Cappadocia and Assyria about the 7th century, B.C., that about the same time the cuneiform style of writing, borrowed from the Babylonian in very early times, was in use, and we ought, therefore, from our two texts, to get a very good idea of the Cappadocian language. Unfortunately, however, on the British Museum tablet almost all the nouns are written ideographically, so that any case-endings that may exist are not easily seen. In the case of the Paris tablet, however, it is not so; for almost all the words are written phonetically, and I have been able to tabulate the following forms:—

PARIS TABLET.

i-ri-si-im
 Pi-ni-šu-ri-im (name of a woman)
 ḥap-pi-ni, ḥap-pu-ḥi-ni
 i-ḥi-ni
 ni-ḥi-in
 a-ḥi-na
 a-ḥi-ma-ba
 a-ḥi-ma
 a-ḥar
 A-šur-gal
 Dan-a-sir } names of women.

BRITISH MUSEUM TABLET.

ma-ta-nim, l. 6.
 i-ša-u-mu, l. 9
 i-ša-a-ma, l. 12
 i-ša-ma[1], l. 17
 na-ma, l. 3

} perhaps verbal forms.

[The only word common to both tablets is *ana*, which seems to be a preposition.]

Now it is clear, from the word *irisim*, and the name Pinišurim (we may compare with these the Piḫirim of Hiḫlakki (Cilicia) of W.A.I. I.); that we may infer the existence of a nominative case ending in *-im*, and other word-forms, both nominal and verbal, ending in *-in*, *ni*, *-na*, *-maba*, *-ma* (*-ama*), *-mal* (*-amal*, *-ama*), and *-umu*. It may be here remarked that if these endings are verbal, we should expect a language allied to the Sumerian—the southern dialect spoken in Babylonia in the earliest times.

It has been pointed out by Prof. Sayce (Transactions, VII, 261), that what we know of Hittite art seems to be derived from Babylonia and not from Assyria, and this is borne out by our new inscriptions, which are written in a character distinctly Babylonian. The boss of Tarḫûtimme also, forgery though the object, as we know it, must be, has been copied from a genuine original, which is, most likely, in existence somewhere, and the characters engraved thereon are distinctly Babylonian in style, with only such a departure from the original forms as we should expect to see in the inscriptions of a people whose intercourse with Babylonia had become, most likely, very limited. It is therefore not impossible that the cuneiform inscription round the edge is really a translation of the Hittite characters in the middle. It must here be noted, however, that the language of the cuneiform and of the hieroglyphs are not necessarily the same.

TRANSCRIPTION OF THE TABLET FROM CAPPADOCIA.

- | | |
|--|---|
| 1. xx ku-tin-a a-bar-ni-e, | 10. mir-tam LXXX ku-tin-a |
| 2.  si-a : x ku-tin-a | 11.  si-a a-na |
| 3. na-ma, ku-tin  si-a ; | 12. el-u-gar i-ša-a-ma |
| 4. x Ku-su-a, ki-ḫi-e  si-a | 13. a-na za-al(?) -ba |
| 5. ša-lu-bu-uš ša-ru-uš (?) | 14. ú-ša-rum lu-rum ša-el-u-ma |
| 6. si-ḫi ku-tin-a ma-ta-nim | 15. $\frac{1}{3}$ ma-na, v ṭu ta |
| 7.  si-a ^v ša-el-u-gar | 16. ik(?) -ut a-na el-u-gar |
| 8. ma-lal ^v ku-tin-a a-na | 17. i-ša-mal |
| 9. el-u-gar i-ša-ú-mu | |

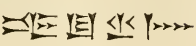
1. It is possible that the signs   were not pronounced *kutin* in Cappadocian, or even in Assyrian or Akkadian, and the reading

BAKED CLAY TABLET FROM
CAPPADOCIA

NOW IN THE BRITISH MUSEUM.

- 1 全圖校及平年圖
- 2 全圖校及平年圖
- 3 全圖校及平年圖
- 4 全圖校及平年圖
- 5 全圖校及平年圖
- 6 全圖校及平年圖
- 7 全圖校及平年圖
- 8 全圖校及平年圖
- 9 全圖校及平年圖
- 10 全圖校及平年圖
- 11 全圖校及平年圖
- 12 全圖校及平年圖
- 13 全圖校及平年圖
- 14 全圖校及平年圖
- 15 全圖校及平年圖
- 16 全圖校及平年圖
- 17 全圖校及平年圖

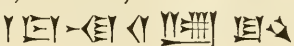
The size of the tablet is $1\frac{1}{8}$ in. by $1\frac{1}{2}$ in. The writing covers the whole of the Obverse, the lower edge, and about two-thirds of the Reverse.

must therefore be regarded as doubtful. In a list published in W.A.I. II, pl. 44, l. 7,  comes after the word "camels."

2. The transcription of  by  is implied by the late Babylonian form , and by the fact that the latter of the Assyrian tablets above translated mentions the word *šiptu* (line 8, &c.), one of the values of  (see W.A.I. II, 12, 7, &c.) in connection with horses. The transcription of  *si* for the next character is implied by the following vowel (for  *hap* we should expect the consonant to be doubled, as in *hap-pi-ni*).   *sia* means most likely (if it be a loan-word) "horned."

6. The first character would perhaps be better transcribed by  *hab*.

7. The reading *el-u-gar* is doubtful. It is possible that the first of these three characters is not  *el* at all.

16. The first character here may be a form of , and not , in which case it would form, with the next, the word  *silver*. The Paris tablet, however, has a similar sign, not followed by , in the line  "one mana 11 shekels of silver" (?).

The character  *ma* is of the form commonly used in the more ancient Babylonian texts () with the uppermost horizontal wedge placed inside. In line 6 it has wedges in both positions, evidently a mistake of the scribe.

I bring these two inscriptions before your notice merely as objects of interest. Whether they be of real value or not I leave for others to determine. Though they may not be themselves the key to the Hittite language, yet they may serve to throw such light upon it as may enable us with greater ease to determine what it really is, and so put us upon the road to the solving of the question.

TRANSCRIPTION INTO ASSYRIAN CHARACTERS
OF THE
TABLET FROM CAPPADOCIA, NOW IN THE BRITISH MUSEUM.



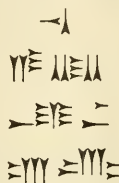
1. << 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶
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4. < 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶
5. 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 (?)
6. 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶
7. 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶
8. 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶
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QUEENS COLLEGE, OXFORD,

October 29th, 1881.

MY DEAR MR. RYLANDS,

Mr. Pinches is to be congratulated on the important discovery he has made. But I do not like to speculate myself on the meaning of the words contained in the tablet he has published, until I have seen the Paris tablet which, he tells us, contains a larger number of phonetically written words. I can, however, add a *third* cuneiform inscription from Kappadokia to the two found by him. When I was in Smyrna last spring I saw a small gryphon's head, carved out of red stone, and in a peculiar style of art, which had come from Kappadokia. On this was the following inscription in what may be termed the Asianic form of cuneiform writing:—



You will notice the arrow-headed shape of the characters. I have not mentioned this inscription before, as I do not know where it begins, though I suspect that it is to be read in a circular fashion, 𐎶𐎵 , *cu*, being the first character, and 𐎶 the last.

I do not understand what Mr. Pinches means by saying that "the boss of Tarkuhimme" must be a forgery "as we know it," since all we know are the casts made by Mr. Ready and M. Lenormant, neither of which can be stigmatised as a forgery. The original is now probably in Russia, like a large part of the rest of M. Jovanoff's collection. Mr. Whittall, the best living authority on such a subject, told me that I "might rest assured of its genuineness, since no oriental forger either could or would make an object of the kind." But the matter is settled by the palæographical evidence. By the way, I cannot agree with Mr. Pinches' ingenious reading *Tar-ku-utum-me*.

In my Appendix on the Trojan Inscriptions in Dr. Schliemann's *Ilios*, I pointed out that the inscription copied by Hamilton at Eyuk is in the Kappadokian alphabet and dialect. Mr. W. M. Ramsay last summer copied a second inscription in the same alphabet at

Eyuk. A part of the latter, which consists of two lines on two faces of a stone, had already been seen and copied by Mordtmann; but the second face of the stone, and consequently the characters upon it, were concealed by the wall of a house at the time of his visit. The two lines I would read as follows, the inscription probably running from right to left:—

1. AFSONP (?) R (?) ĚTSĒS
2. ΘN (?) AFĒ.. TUG (?) AKSOS

As in Hamilton's inscription the final O of the second line will mark the genitive case, *Sesterpnos* in the first line being probably the name of a man in the nominative.

Yours very truly,
A. H. SAYCE.

DEAR MR. RYLANDS,

4th October, 1881.

The importance of the discovery of Mr. Pinches cannot, I think, be overrated, for we have now a new language written with a syllabary borrowed from the early Babylonians. Who were the people speaking this new tongue? and what tongue did they speak?

The evidence brought forward by Mr. Pinches proves that they inhabited Cappadocia, that is, they were the *Muski* of the Assyrian Inscriptions. Sir H. Rawlinson has proved that these were identical with the *Moski* of the Bible, which Josephus positively places in Cappadocia. It may be noticed that though Egypt was especially known in Syria for its breed of horses (Deut. xvii, 16), Cappadocia had also a reputation for the excellence of its horses and "mules," which were imported for the Syrian kings (Ezek. xxvii, 14). We know also, from Xenophon, that horses formed a portion of the tribute paid by the Cappadocians to the Persian kings. I should therefore be inclined to accept for *Kutin* the proposed translation "mules."

Through the kindness of Mr. Pinches, I have been able to examine his copies of both the Cappadocian tablets, and, from a careful survey of the various forms of the words, I am satisfied that the writing is a dialect allied to the Aryan or Indo-European tongues, and especially to Armenian. I may here mention that Sir H. Rawlinson declared some years ago that the inner populations of

Asia Minor, or Cappadocia, were Aryan, and that the names of the Moschian kings could be explained by the Aryan or Semitic dialects (Herod. 1, 678). The two tablets are certainly non-Semitic. It is also important to notice that the Cappadocians were called "Gomer" by the Armenians, and that Gomar, Moshek, and Togarmah are placed in the Biblical genealogies (Gen. x, 2-3) with Madai (Medes) among the sons of Japhet.

Yours faithfully,

G. BERTIN.

The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, December 6th, at 8 p.m., when the following papers will be read :—

I. By THEO. G. PINCHES :—"Remarks on the Cappadocian Tablet," preserved in the Bibliothèque Nationale, and that in the British Museum. Casts of the Tablets will be exhibited.

II. By PROFESSOR JOHN CAMPBELL, of Montreal :—"The Key to the Hittite Inscriptions."

III. By THEO. G. PINCHES :—"Observations upon the Calendars of the Ancient Babylonians."

FUND FOR ALTERATION AND EXTENSION OF THE SOCIETY'S
LIBRARY.

In consequence of the removal of the Offices of the Society to No. 11, HART STREET, BLOOMSBURY, W.C., a special fund has been formed for the alteration and extension of the Society's Library.

The following subscriptions have already been received by the Secretary. Further amounts subscribed will be duly acknowledged in the Proceedings :—

	£	s.	d.
James Backhouse	2	2	0
Robert Bagster	1	1	0
Rev. Charles James Ball	3	3	0
Rev. Canon St. Vincent Beechey ...	2	2	0
S. Birch, D.C.L., &c. (<i>President</i>) ...	3	3	0
B. T. Bosanquet (<i>Hon. Treasurer</i>) ...	5	5	0
Arthur Cates (<i>Hon. Secretary</i>) ...	5	5	0
Thomas Christy	5	0	0
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Rev. George Currey, D.D.	3	3	0
P. J. de Horrack	3	0	0
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Charles Harrison, F.S.A.	5	0	0
J. Park Harrison, M.A.	2	0	0
Professor T. Hayter Lewis, F.S.A. ...	5	5	0
Rev. A. Löwy	3	3	0
E. L. Lushington, D.C.L., &c. ...	5	0	0
Rev. James Marshall, M.A.	1	1	0
Rev. Josiah Miller	1	1	0
F. D. Mocatta	5	5	0
Walter Morrison	20	0	0
Sir Charles Nicholson, Bart.	2	2	0
J. Manship Norman, M.A.	5	0	0
Miss Peckover	2	2	0
John E. H. Peyton	2	2	0
T. G. Rylands, F.S.A., &c.	5	0	0
W. H. Rylands, F.S.A. (<i>Secretary</i>) ...	5	5	0
George Samuel	10	10	0
Rev. A. H. Sayce, M.A.	5	5	0
Joseph Sidebotham, F.S.A., &c. ...	20	0	0
Rev. Henry George Tomkins	1	1	0
Erasmus Wilson, F.R.S.	5	0	0

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

- BOTTA, Monumens de Ninive. 1847—1850.
 PLACE, Ninive et l'Assyrie, 1866—1869. 3 vols., folio.
 FERGUSON, Palaces of Nineveh and Persepolis. 1 vol., 8vo., 1851.
 BONOMI, Nineveh and its Palaces. 1 vol., 8vo., 1853.
 BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
 ———— Geographische Inschriften Altaegyptische Denkmaeler.
 Vols. I—III (Brugsch). Vol. IV, in 2 parts (Dümichen).
 DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
 ———— 2nd series, 1869.
 ———— Altaegyptische Kalender Inschriften, 1866.
 ———— Tempel Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LANE, Manners and Customs of Modern Egyptians. 2 vols., 8vo.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ———— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar.
 ———— Arabic Chrestomathy. 1 vol., texts, and complete glossary.
 DELITZSCH, Assyrische Studien. Heft I, 1874.
 SCHROEDER, Die Phönizische Sprache.
 HAUPT, Die Sumerischen Familiengesetze.
 SCHRADER, Die Keilinschriften und das Alte Testament, 1872.
 ———— Die Assyrische-Babylonischen Keilinschriften, 1872.
 RAWLINSON, CANON, Five Great Monarchies. 3 vols.
 ———— 6th and 7th do.
 OSBURN, The Monumental History of Egypt. 2 vols., 8vo.
 ———— The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841—1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824—30. (*Text only.*)

SOCIETY OF BIBLICAL ARCHÆOLOGY PUBLICATIONS.



The Bronze Ornaments of the Palace Gates from Balawat.

[SHALMANESER II, B.C. 859-825.]

EDITED, WITH AN INTRODUCTION, BY

SAMUEL BIRCH, Esq., D.C.L., LL.D., F.S.A., &c.



Parts I, II, and III have now been issued to Subscribers, with some portion of the letterpress description by Mr. THEO. G. PINCHES.

In accordance with the terms of the original prospectus, the price for each part is now raised to £1 10s.

Terts in the Babylonian Wedge = writing.

Being a series of carefully autographed plates, copied from tablets written in the Babylonian character only; compiled by THEO. G. PINCHES, of the Department of Oriental Antiquities, British Museum.

The design of the Author is to furnish students with the means of making themselves acquainted with the Babylonian style of writing, and to this end the texts, which will be of high value and interest, will be accompanied by as complete a syllabary of the Babylonian characters as can now be made, arranged in a convenient form for reference.

It is proposed to issue the work in two parts:—Part I is now in preparation, and will be ready for issue towards the end of the present year. The price will be about 4s. for each part.

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

TWELFTH SESSION, 1881-82.

Second Meeting, 6th December, 1881.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.

THE following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Geographical Society :—Proceedings, and Monthly Record of Geography. Vol. III. No. 11. 8vo. November, 1881.

From the Geological Society :—Quarterly Journal. Vol. XXXVII. Part 4. No. 148. 8vo. London, 1881.

From the Philosophical Society of Glasgow :—Proceedings. Vol. XIII. No. 1. 8vo. Glasgow, 1881.

From the Anthropological Institute of Great Britain and Ireland :—Journal. Vol. X. No. 4. 8vo. London. May, 1881.

From the Académie des Inscriptions et Belles Lettres :—Corpus Inscriptionum Semiticarum. Pars Prima, Inscriptiones Phœnicias continens. Tomus I, fasciculus primus. Parisiis. 4to. 1881.

Ditto, ditto, Tabulæ, fasciculus primus (Tab. 1-xiv). Parisiis. 4to. 1881.

[No. xxvii.]

From Sir Charles Nicholson, Bart., &c., &c., Vice-President :—
Athanasii Kircheri e Soc. Jesu, Œdipus Ægyptiacus, hoc est
Vniuersalis Hieroglyphicæ Veterum Doctrinæ temporum iniuria
abolitæ instauration. 3 vols. Folio. Romæ, 1652.

From Arthur Cates, *Hon. Sec.* :—Bibliotheca Orientalis. By Karl
Friederici. 8vo. Leipzig. 1879 and 1880. 2 parts.

From Robert Bagster :—Records of the Past. 12 Volumes, bound
in six. London. 8vo. 1875–81.

Babylone et la Chaldée. Par Joachim Ménant. Paris. 8vo.
1875.

Classification des Caractères Cuneiformes, Babyloniens et
Ninivites. Par Ed. de Chossat. 4to. Paris.

Assyrische Lesestücke nach den originalen theils revidirt
theils zum ersten male herausgegeben, &c. Von Dr. Friedrich
Delitzsch. Leipzig. Folio. 1876.

Mémoire sur quelques Papyrus du Louvre. Par G. Maspero.
Paris. 4to. 1875.

Index Alphabétique de tous les mots contenus dans le Livre
des Morts, &c. Par J. Lieblein. Paris. 8vo. 1875.

L'Exode et les Monuments Égyptiens, Discours prononcé
à l'occasion du Congrès International d'Orientalistes à Londres.
Par Henri Brugsch-Bey. Leipzig. 8vo. 1875.

A series of 15 Folio Plates of the Black Obelisk of Shal-
maneser II (c. 823 B.C.). See Records of the Past, Vol. V, p. 27.
From the Author :—Language, and Theories of its Origin. By
Robert Brown, F.S.A. London. 8vo. 1881.

Reprinted from the Journal of Transactions of the Victoria
Institute.

From the Author :—Glimpses into the Past. By Henry Phillips.
jun., A.M., Ph.D. Philadelphia. 8vo. 1881.

The following have been purchased by the Council for
the Library of the Society :—

The New Testament, translated out of the Greek : being the
Version set forth, A.D. 1611, compared with the most ancient
authorities, and revised 1881. Cambridge. 8vo. 1881.

The Chaldean Account of Genesis, translated by George Smith.
New Edition, revised, &c., by A. H. Sayce. London 8vo.
1880.

The following were nominated for election at the next meeting, January 10th :—

Lady Belcher, 26, Cumberland Terrace, Regent's Park, N.W.
Francis Llewelyn Griffith, Queen's College, Oxford.
Alfred Lionel Lewis, 35, Colebrooke Row, N.
Rev. A. H. Delmé Radcliffe, M.A., Holwell Rectory, near Hitchin, Herts.
Rev. Marlow Osmond Stevens, M.A., Anlaby, Weston-super-Mare.
Whitewright Stuart, Turin.

The following were elected Members of the Society, having been nominated on November 1st :—

Dr. Carl Bezold, 34, Brienner Strasse, Munich.
David Burnett, 107, Fortess Road, N.W.
Hon. Charles P. Daly, LL.D., 84, Clinton Place, New York, U.S.A.
Aquila Dodgson, Limehurst, Ashton-under-Lyne.
George Carruthers Finnis, 13, York Terrace, Regent's Park, N.W.
Dr. Lucien Gautier, Professor of Theology, Lausanne, Switzerland.
Dr. Grant-Bey, The Sanatorium, Cairo.
Thomas Greer, M.P., F.R.G.S., Grove House, Park Road, Regent's Park, N.W.
Dr. William Lotz, 22, Bahnhofsstrasse, Cassel.
Dr. Alexander Macalister, The University, Dublin.
Samuel Perkes, C.E., Larnaka, Cyprus.
Demetrius Pierides, Larnaka, Cyprus.
The Hon. George Shea, Chief Justice of the United States Marine Courts, 205, West 46th Street, New York, U.S.A.
Rev. William Saumarez Smith, B.D., Principal's Lodge, St. Aidan's College, Birkenhead.
Rev. Arnold Dawes Taylor, B.A., The Rectory, Churchstanton, Honiton, Devon.
Frederic Cope Whitehouse, M.A., Founder's Court, E.C.
Rev. A. F. A. Woodford, M.A., 25A, Norfolk Crescent, Hyde Park, W.

Theo. G. Pinches read the following remarks upon the Cappadocian Tablet, preserved in the Bibliothèque Nationale, and that in the British Museum. Casts of the Tablet were exhibited.

I now give a copy, with transcription into the Assyrian character, of the tablet in the Bibliothèque Nationale, Paris, supposed to have come from Cappadocia. The casts of this tablet now exhibited, are due to the kindness of M. Pognon, *Consul Suppléant de France* at Tripoli, and from these I have corrected the copy of the tablet which I made at Paris. The annexed transcription into the Roman character will enable the members of the Society to see what the words are like, and in what connection they occur.

The subject of the tablet seems to be, as before remarked, a gift of silver to the Sun-god, whose name occurs in the 1st and 4th lines, and with which gift an officer called $\text{𒌦𒌦𒌦} = (\text{Tab})$, (lines 2, 17, 22 and 24) seems to have something to do. In line 16 occurs the name of another officer, expressed by the characters $\text{𒌦𒌦𒌦} \text{𒌦𒌦𒌦} \text{𒌦} \text{𒌦𒌦} \text{𒌦} (?)$ *Dub-bi-ni-šu* (?), and afterwards come the names of three women, named Pinišurim, Ašurgal, and Današir.

The number of Akkadian words in this tablet is very small, being evidently only $\text{𒌦𒌦} \text{𒌦}$ "the Sun-god;" 𒌦 𒌦𒌦 *mana*, "a maneh;" and 𒌦𒌦𒌦 "a shekel;" to which may be added the determinative prefixes 𒌦𒌦 "god;" 𒌦𒌦𒌦 "man;" and 𒌦𒌦 "woman." Though the language of the tablet is evidently not Assyrian, yet it has the three endings -u, -i or -im, and -a or -am, in the words *úšu*, *ašû*; *kûgi*, *happini*, *irisim*, *rikzim*; *iliga*, *lal-a bat-a*, and *rikzam*. The two tablets have much in common, besides the likeness of the form and colour, and the shape of the characters, and, notwithstanding the three endings which correspond with the endings of Assyrian nouns, do not yield any known words except the ideographs, and the word *ana*, which would be, in Assyrian, the preposition "to."

Judging from the names of towns which have come down to us, the commonest word-endings seem to be *a* and *î*, which should therefore represent the nominative case of feminine or neuter nouns. To enable a fair comparison to be made, I give here a list of names

of the principal towns and districts in the south of Asia Minor, extending south eastwards into Syria* :—

(Alû) Arpadda (Arpad).	(Alû) Mannuşûate, Manşuate,
(Alû) Arzuḫina.	Manşuatam.
(Mātu) Aa.	(Mātu) Musku (Meshech).
(Alû) Gargamiš (Karkemish).	(Alû) Mazamua.
(Alû) Dimaška (Damascus).	(Mātu) Melidi (Melitene).
(Alû) Dâna (Dāna).	(Alû) Sûḫu.
(Alû) Ḫatarakka, Ḫatarikka.	(Alû) Sam'alla.
(Alû) Ḫindana.	(Alû) Samarina.
(Mātu) Ḫilakku (Cilicia).	(Alû) Şimirri, Şimirra.
(Mātu) Iaêna.	(Alû) Şubutam.
(Alû) Kulnia,† Kullania, Kulnî.	(Alû) Ku'e.
(Mātu) Kûsu, Kusua (Cappadocian Tablet).	(Alû) Kârne.
	(Alû) Şibartu.

The question of the situation of the land of the Kusâa, as well as that of the form of the name when used to denote the country itself, seems to be set at rest by one of the tablets from which the above list of names of towns is taken. This tablet, which is the first published on plate 53 of the work above referred to, contains, in the second column of the obverse, the names of the cities and countries in the neighbourhood of the Taurus range of mountains, and includes (l. 13) the land of the Kûsu (𐎠𐎫 𐎠𐎢𐎽𐎢𐏀𐎠𐎢𐎽𐎢𐏀). It is evident, therefore, from the connection in which it occurs, that we are to understand by this Cappadocia, and not Ethiopia. This identification sheds at once a new light on two important passages in the Book of Genesis, the first of which is in chapter ii, v. 3, where the river Gihon, which “encompasseth the whole land of Cush,” is mentioned; and the other in chapter x, v. 8, where is recorded the fact that Cush begat Nimrod. Now, in both these passages it has been supposed by

* Most of these names are taken from the third volume of the Cuneiform Inscriptions of Western Asia, pl. 53. Those which are not taken from that source, have appeared already in the foregoing number of the Proceedings of the Society. The prefix *alû* signifies “town” or “city”; *mātu*, “country.”

† Wrongly given in the Inscriptions as 𐎠𐎫𐎠𐎢𐎽𐎢𐏀 -*ni-a* and 𐎠𐎫𐎠𐎢𐎽𐎢𐏀 -*ni-a*.

some scholars that the land of Cush here mentioned is the same as Ethiopia ; but it seems to be much better to identify it in both cases with Cappadocia. The question of the position of Paradise is also connected with these identifications,* on account of the removal of the river Gihon up thither.

Another most interesting matter is the double name system thus brought to light : the Mušri of the Black Obelisk (a tribe to the north of Assyria), and the Mušri in Egypt, the Cush Cappadocia and the Cush Ethiopia, the Makan and Meluhha in Babylonia, and the districts of the same name in Egypt, all pointing to a connection in the minds of the people of the ancient world, and opening out interesting ethnographical connections.

The question of the original home of the Akkadians is also affected thereby. Cappadocia has always been regarded as a country celebrated for its horses, and it is worthy of notice that the Akkadians nearly always call the horse by the name 𐎶𐎵 𐎶𐎵 𐎶𐎵, generally translated "animal of the east," † but a more natural translation would be "animal of the country"; and as it seems that the country north of Assyria was also called Akkad, as well as the northern part of Babylonia, the neighbourhood of Cappadocia as the home of the Akkadian race may be regarded as a very possible explanation, and the fact of the cuneiform characters being in use there would therefore be no mystery.

* The most likely position of Paradise is the region of the Persian Gulf ("the remote place at the mouths of the rivers").

† This rendering would require the insertion of another character to make it tenable (𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵).

NOTE.—A comparison of the text of W.A.I., IV, pl. 2, l. 10 & 11, shows that it is necessary to read, instead of the characters at the beginning of the line which are marked as doubtful, the word 𐎶𐎵 𐎶𐎵 𐎶𐎵 "horses," showing that the Assyrian word is rather *sisû*, than *murnišku*. Read therefore *sisû* instead of *murnišku* in the last number of the Proceedings, wherever the latter word occurs.

TRANSCRIPTION INTO THE ASSYRIAN CHARACTER
OR
THE TABLET IN THE BIBLIOTHÈQUE NATIONALE, PARIS.

—o—

1. 𐎶 𐎠𐎵 𐎶𐎶 𐎶𐎶 𐎶𐎶
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25. 𐎶𐎶

* Or 𐎶𐎶.

† Or 𐎶𐎶.

TRANSCRIPTION OF THE TABLET IN THE BIBLIOTHÈQUE
NATIONALE, PARIS.

- | | |
|---|---|
| <p>1. A-ḥar ➤𐎶𐎵 a-na
 2. i-ri-si-im 𐎶𐎶𐎶 tab ma-nu pi-
 am (?)
 3. ḥap-pi-ni šu-ni a-ḥi-ma-ba
 4. dub-ma* a-ḥar ➤𐎶𐎵 -ma
 5. I ma-na XI 𐎶𐎶 ik
 6. ri-ik-za-am ú-šu a-ṭu-u
 7. ku-u-gi i-li-ga
 8. ri-ik-zi-im
 9. na-aḥ (?) ri-ik-za-am
 10. ma-nu riš-ša-šu lal-a† bat-a
 11. a-ḥi-na-ma miš
 12. sa (?) -ma i-ri-šu dub-ba* (?)</p> | <p>13. ta-ḥi-eṇ-?
 14. a-na a-pi(?) -tim
 15. a-ni a(?) -bi(?)
 16. ki (?) 𐎶𐎶𐎶 dub-bi-ni-šu(?)
 17. 𐎶𐎶𐎶 tab gal i-ḥi-ni a-ḥi-ba(?)
 18. 𐎶 Pi-ni-šu-ri-im
 19. ša a-šur ḥap-pu-ḥi-ni
 20. ni-ḥi-in
 21. 𐎶 A-sur-gal
 22. 𐎶𐎶𐎶 tab lal di-ib
 23. 𐎶 Dan-a-šir
 24. 𐎶𐎶𐎶 tab a-šur iš-ta-
 25. gal</p> |
|---|---|

The doubtful characters at the ends of lines being on the edge of the tablet, are therefore very indistinct on the casts.

Remarks were added by G. Bertin, Theo. G. Pinches, and the President.

A Communication, entitled Observations upon Calendars of the Ancient Babylonians, now in the British Museum, was read by Theo. G. Pinches:—

There are in the British Museum several texts of great interest for the light they throw upon the religion, superstition, &c., of the ancient Assyrians and Babylonians. These texts comprise what have been called Hemerologies (of which several fragments exist, together with one almost complete), and calendars. Of the latter we have two in the National Collection, each of a different character. The more complete of the two, of which two copies exist, is extremely difficult to translate, but what is certain is often of a most interesting character. Most of the directions are very commonplace, such as "In the month Nisan, the 1st day is wholly lucky," or "the 4th, half the day is lucky," or "the 11th, a day of joy of heart" (*Ami hud libbi*). Some of the directions, however, are very curious, as those for the 5th and 6th of Iyyar. That for the 5th is, "If one take not a wife, one grows old," and that for the 6th, "take a wife and grow old." On the 9th of Iyyar there is the information that "If one eat fish, one takes evil," and the 20th is an excellent day for killing a snake. It is worthy of

* Or, perhaps, *um-ma*.

† Or, *me-a*.

TABLET supposed to come from CAPPADOCIA.

Now in the Bibliothèque Nationale, Paris.

[5,931. Fortia d'Urban, N° 6]

- 1 𐎶𐎵𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵
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- 18 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵
- 19 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵
- 20 𐎶𐎵 𐎶𐎵 𐎶𐎵
- 21 𐎶𐎵 𐎶𐎵 𐎶𐎵
- 22 𐎶𐎵 𐎶𐎵 𐎶𐎵
- 23 𐎶𐎵 𐎶𐎵 𐎶𐎵
- 24 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵
- 25 𐎶𐎵

remark that the 20th of certain months is given as the time when there will be an eclipse of the sun, and the months so designated in the calendar are Sivan, Tisri, and Kislev. An eclipse of the moon is predicted for the month Tammuz. The other tablet, which contains only the first four months, namely, Nisan, Iyyar, Sivan, and Tammuz, differs entirely with regard to the omens, and devotes a long paragraph to the first day of each month. Unfortunately, the mutilation of the text makes it impossible to give at present any idea of the more remarkable omens, but much more will be visible after the tablet is cleaned. It is noteworthy that there is no mention in these two tablets* of a regular sabbath, it only being here and there directed that "one should not pay money," or that "one should not ride in a chariot," or "in a ship," on certain days—recommendations made, not on account of the sacredness of the day, but only because it was considered unlucky to do these things.

Remarks were added by Rev. Basil Cooper, G. Bertin, Theo. G. Pinches, and the President.

NOTE.—As, in the discussion, doubt was expressed as to the correctness of the translation of the words which state that an eclipse of the sun is predicted for the 20th of the months Sivan, Tisri, and Kislev, the following explanation of the words is offered :—The words used in each case are      *an-ta-lu (ilu) Šamši.* "eclipse (lit. heaven-darkness) of the Sun." The correctness of the meaning of the word *antalu*, as above, is assured by the characters used to express an eclipse of the moon (the prediction for the 15th of Tammuz), where, for the word   *an-gi*, lit. heaven-night="heaven-darkness," the variant    *an-ta-lu*, occurs.

A squeeze of the Inscription from Jerebis, recently arrived at the British Museum, was exhibited by the Secretary.

A paper by Professor John Campbell, entitled a Key to the Hittite Inscriptions, was read by the Secretary.

Remarks were added by Rev. Dunbar J. Heath.

* The setting aside of every seventh day in the month is implied, however, in the Hemerologies.

The following Communication has been received from Professor Sayce:—

QUEENS COLLEGE, OXFORD,

DEAR MR. RYLANDS,

Nov. 17th, 1881.

Canon Tristram has forwarded to me the squeeze of Nebuchadnezzar's inscription on the northern bank of the Nahr-el-Kelb, to which we were looking forward, and I am sorry to say it has proved a disappointment. The inscription has been more injured than I supposed at first was the case; in fact, the first column only has been at all fairly preserved. Moreover, the squeeze was taken under great difficulties, without proper apparatus, and with the spray of the mill-stream constantly wetting the paper. The result is that the squeeze has added very little to the knowledge of the inscription derived from the photographs. I learn from Dr. Hartmann that there are four other inscriptions besides the long one in four columns. One of these has been protected from the weather by an overhanging piece of rock, and the characters upon it have consequently been well preserved.

Here is the inscription, so far as I can make it out from a comparison of the photographs and the squeeze. I think it wise to refrain from conjectural restorations.

Column I. The beginning is lost. Then we have:—

1. ni is . .
2. nu te e
3. (a pu-) ra-ti el . .
4. . . . bat sa . . ab (?)
5. . . ri . .    
6. . . ci-ru hu-sal-me
7. . . ni (?) ri e ma
8. . . . su ina du-ri
9. . . ca-ri ak-zur-ma
10. . . ab-na u a-gur-ri
11. . . ne su ab-nu
12. . .   hu-ci-is
13. . .   ši-par    
14. . . ma ni te te si-na-ti

15. . . sur ri e Ba-bi-lu 
16. . . da (?) ina a-pu (?) ra-ti
17. kas-pu a-di
18. . . . ri ina mi-ri ma
19. . . . a lu (?) us-tal-me
20. . . . bu ti . . ru si-i
21. . . . te (?) ru bu a-gur-ri
22. . . bi-ni su-nu ak-zur
23. ma      
24. a-di     
25. . . a-di   ne . .
26. . . . pu-ra-ti
27. . . . (kas-) pu    : . .

The rest is destroyed. It will be noticed that the words in line 8, *ina duri*, "in the fortress," preclude the idea of the aqueduct

at the Nahr-el-Kelb being the public work, the construction of which is described by Nebuchadnezzar. From line 24 it would appear to have been in the neighbourhood of Sippara. The word before *uciš*, "I cut down," in line 12, is probably "trees." What remains of the following columns is so meagre as to be not worth transcribing. As I stated in my last letter, the name of Nebuchadnezzar occurs, with his titles, as also the words *mamis urdu*, "like waters they descended." I further find *Ba-bi-lu*, *bil-lu-ti*, and *kas-pu*, and towards the top of the third column is *sarru*, "king." Here, if anywhere, would have been an account of Nebuchadnezzar's campaigns in Syria. A detached fragment contains the word *tši-i-ri*, "supreme."

Pending the publication of more Kappadokian texts, I will not venture any suggestions as to the character of the language represented in them, and will content myself with offering the following tentative rendering of the tablet published by Mr. Pinches:—

1. xx   -a a-par-ni-e
20 horses for the chariot
2.   -ši-a x   -a
in good condition, 10 horses
3. na-ma     -ši-a
{the foals } of a horse in good condition,
 {the mares }
4. x Ku-šu-a ki-khi-e   -ši-a
10 Kusuan (horses) for the rider in good condition,
5. sa ku pu us sa ru tim
.....
6. ši-khi   -a ma-ta-nim
..... horses these
7.   -ši-a  (?) sa  El'u-gar
in good condition Eš'ugar
8. ma lal  (?)   -a a-na
..... the horses which

9. 𐎶 El-'u-gar i-sa-u-mu 𐎶
El'ugar had sent.
10. mir-tu LXXX 𐎶 𐎶 -a
Altogether 80 horses
11. 𐎶 𐎶 -ši-a a-na
in good condition which
12. 𐎶 El-'u-gar i-sa-a-ma
El'ugar sent;
13. a-na za-al-ba
which
14. hu sa as lu as sa 𐎶 El-'u-ma (?)
 El'uma (?)
15. XII ma-na v 𐎶 𐎶 -ta
for 12 minehs, 5 shekels
16. 𐎶 𐎶 a-na 𐎶 El-'u-gar
of silver, which El'ugar
17. i-sa-mâ
sent

In line 7 we should probably read *as-sa*, and at the end of line 14 *gar* instead of *ma*.

Yours very truly,
 A. H. SAYCE.

The following communication has been received from F. W. Eastlake :—

URUKU *versus* ŠIŠKU.

Only a few days ago I received the Report of the Society's Proceedings at the meeting of January 11th of this year, and was much interested by Dr. Lauth's "Remarks on the name Šišku," which are ingenious, to say the least. I agree, however, with Sir Henry Rawlinson and Mr. Theo. Pinches, that, 1st, Šišku is not the correct reading of the group 𐎶 𐎶 𐎶, and, 2nd, that it represents, most probably, another name of Erech-Warka.

as Dr. E. Schrader (*Die Keilinschriften u. d. Alte Test.*, p. 18) has already pointed out, the ideogram for "month" (𐎶𐎵𐎶) is very different from the ideogram in the name of the city. As an attempt to demonstrate the correct etymology of the name Uruk, Arku, I would submit the following remarks :

The character 𐎶𐎶𐎶𐎶 seems to have had two distinct values, UNU and URU, of which the first was the older, and in the earlier texts probably the only one known. Thus, while it seems plausible that 𐎶𐎶𐎶𐎶 𐎶𐎶* should be the phonetic writing of the name Uruk (URU-KI), I concur with Dr. Delitzsch† in believing that the Sumerian reading was UNU-KI, or Unuk. As examples of this value UNU, we have the following equations :

𐎶𐎶𐎶𐎶 = 𐎶𐎶𐎶𐎶 . 𐎶𐎶𐎶𐎶 . 𐎶𐎶𐎶𐎶 𐎶𐎶𐎶𐎶
 𐎶𐎶𐎶𐎶 = 𐎶𐎶𐎶𐎶 . 𐎶𐎶𐎶𐎶𐎶𐎶 . 𐎶𐎶𐎶𐎶 𐎶𐎶𐎶𐎶 𐎶𐎶𐎶𐎶

Unuk, therefore, means "place of dwelling," or as a seat of royalty, equivalent to the German "Residenzstadt."

On the other hand, 𐎶𐎶𐎶𐎶 had certainly another value, URU, which, however old, was not its first value. If we compare the ideogram of Uru-Mugheir on the oldest texts 𐎶𐎶𐎶𐎶 𐎶𐎶 with the texts of later date.

𐎶𐎶𐎶𐎶 𐎶𐎶 W.A.I., IV, 38.

𐎶𐎶𐎶𐎶 𐎶𐎶𐎶𐎶 𐎶𐎶 W.A.I., II, 46, 51.

we find that 𐎶𐎶𐎶𐎶 is used in the place of 𐎶𐎶 and 𐎶𐎶 (𐎶𐎶𐎶 = 𐎶𐎶𐎶). That this was not customary in earlier times, is clearly exhibited by the Babylonian geographical list already referred to, in which Uru-Mugheir and Uruk-Erech are written within a few lines of each other :

𐎶𐎶𐎶𐎶 𐎶𐎶 and 𐎶𐎶𐎶 𐎶𐎶 §

The Sumerian word URU had probably some such meaning as "habitation," "dwelling," and was written 𐎶𐎶, 𐎶𐎶𐎶, which latter is

* Which Mr. Smith (*Records of the Past*, V. 106) read LAB-KI.

† *Assyrische Lesestücke*, 2nd ed., p. 12, No. 120.

‡ "Dwelling," *subtuv*, R. 𐎶𐎶𐎶; this word frequently occurs, phonetically written, in the status constructus 𐎶𐎶𐎶, e.g., W.A.I., I., 39, 70.

§ Perhaps 𐎶𐎶𐎶 (as found in early texts) is more correct than 𐎶𐎶𐎶𐎶 which the Syllabaries give as a compound of *és* (𐎶𐎶) and *gunu*.

preserved in the Assyrian 𒌦𒌦 *utlu* or *išdu*, "foundation," "ground," and perhaps also in 𒌦𒌦 *ikkaru*, "foundation," thus : *

𒌦𒌦 . 𒌦𒌦 . 𒌦𒌦

𒌦𒌦 𒌦𒌦 . 𒌦𒌦 W.A.I. II, 4, 717-719.

𒌦𒌦 𒌦𒌦 . 𒌦𒌦 W.A.I. II, 2, 289.

Finally, URU became a sort of *terminus technicus* for a burial place, especially when joined with GAL, as in the following :

𒌦𒌦 𒌦𒌦 𒌦𒌦 𒌦𒌦 . 𒌦𒌦 . 𒌦𒌦

The "great habitation," that is, the "grave" קבר. Now the ruins of Uruk-Erech have disclosed numerous remains of ancient coffins, so many, in fact, that the city seems to have been the necropolis (URU-GAL) of Babylonia 𒌦𒌦𒌦 . Already the ideogram for a "dwelling-place" was used on this account in the sense of "burial-place"; received a new value URU; and the city, represented by 𒌦𒌦𒌦 𒌦𒌦 , UNU-KI, became URU-KI, Uruk, Arku, Erech, Warka.

That 𒌦𒌦𒌦 was actually pronounced URU, in the sense of "burial-place," is proved by the name of the god Nergal.

𒌦𒌦 𒌦𒌦 𒌦𒌦𒌦 𒌦𒌦

which Dr. Delitzsch (Assyr. Lesest., pp. 22, 242) reads Nê-uru-gal, and translates "Prince of the Great City," i.e., "City of the Dead." This translation is again verified by W.A.I., III, 67, 69.

𒌦𒌦 𒌦𒌦 𒌦𒌦𒌦 𒌦𒌦 𒌦𒌦 . 𒌦𒌦 . 𒌦𒌦 (קבר)

The Assyrians themselves seem to have appreciated the fact that a new meaning had been forced upon 𒌦𒌦𒌦 , otherwise such frequent mistakes as :

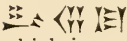
𒌦𒌦 𒌦𒌦 𒌦𒌦 . 𒌦𒌦 𒌦𒌦

𒌦𒌦 𒌦𒌦 . 𒌦𒌦 𒌦𒌦 𒌦𒌦 𒌦𒌦 W.A.I. II, 59, 37.

𒌦𒌦 𒌦𒌦 𒌦𒌦 𒌦𒌦 , etc., etc.

would be unaccountable (Dr. Delitzsch, "ungenau"; M. Lenormant, "tracé par erreur").

* On account of its form and meaning one is almost inclined to include 𒌦𒌦 in this category, although its ancient value was ÉŠ.

In conclusion, it seems probable that we have in the group  a phonetically written name for Erech, an hypothesis which is rendered all the more plausible by the geographical position of that city and the chronological data.

Thanks were returned for these communications.

The Anniversary Meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, January 10th, at 8 p.m., when the Council and Officers of the Society for the ensuing year will be elected, and the usual business of the Meeting transacted.



SUBSCRIPTIONS to the Society become due on the 1st of January each year. Those Members in arrear for the current year are requested to send the amount £1 1s. at once to the *Treasurer*, B. T. BOSANQUET, ESQ., 73, Lombard Street, E.C.

PAPERS proposed to be read at the Monthly Meetings must be sent to the Secretary on or before the 10th of the preceding month.

Members having NEW MEMBERS to propose are requested to send in the names of the Candidates on or before the 10th of the month preceding the meeting at which the names are to be submitted to the Council. On application, the proper nomination forms may be obtained from the Secretary.

Vol. VII, Part 2, of the "Transactions" of the Society has been delivered to the Members. Vol. VII, Part 3, containing amongst other matters the copies of "Hittite" Inscriptions, will be issued in January next. Only a few complete sets of the "Transactions" of the Society now remain; they may be obtained by application to the Secretary, W. HARRY RYLANDS, F.S.A., 11, Hart Street, Bloomsbury, W.C.

The LIBRARY of the Society, at 11, Hart Street, Bloomsbury, W.C., is open to Members on Monday, Wednesday, and Friday, between the hours of 11 and 4, when the Secretary is in attendance to transact the general business of the Society.

As a new list of Members will shortly be printed, Members are requested to send any corrections or additions they may wish to have made in the list which was published in Vol. VI, Part 2.

Members are recommended to carefully preserve their copies of the "Proceedings," as they will not be reprinted at the end of the Volume of "Transactions," and if lost can only be supplied at a charge for each Part, or for the Volumes.

The LIBRARY and OFFICES of the Society will be closed during Vacation, from December 24th to January 2nd, 1882, inclusive.

FUND FOR ALTERATION AND EXTENSION OF THE SOCIETY'S
LIBRARY.

The following subscriptions have already been received by the Secretary. Further amounts subscribed will be duly acknowledged in the Proceedings :—

	£	s.	d.
James Backhouse	2	2	0
Robert Bagster	1	1	0
Rev. Charles James Ball	3	3	0
Rev. Canon St. Vincent Beechey	2	2	0
S. Birch, D.C.L., &c. (<i>President</i>)	3	3	0
B. T. Bosanquet (<i>Hon. Treasurer</i>)	5	5	0
Arthur Cates (<i>Hon. Secretary</i>)	5	5	0
Thomas Christy	5	0	0
Hyde Clarke	1	1	0
Miss Clendinning	2	2	0
Captain W. C. Crothers	1	1	0
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The Rt. Rev. the Lord Bp. of Durham	5	0	0
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E. L. Lushington, D.C.L., &c.	5	0	0
Rev. James Marshall, M.A.... ..	1	1	0
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F. D. Mocatta	5	5	0
Walter Morrison	20	0	0
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J. Manship Norman, M.A.	5	0	0
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John E. H. Peyton	2	2	0
T. G. Rylands, F.S.A., &c.	5	0	0
W. H. Rylands, F.S.A. (<i>Secretary</i>)	5	5	0
George Samuel	10	10	0
Rev A. H. Sayce, M.A.	5	5	0
Joseph Sidebotham, F.S.A., &c.	20	0	0
Rev. Henry George Tomkins	1	1	0
H. M. W.	1	17	0
Erasmus Wilson, F.R.S.	5	0	0

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

- BOTTA, Monuments de Ninive. 1847—1850.
 PLACE, Ninive et l'Assyrie, 1866—1869. 3 vols., folio.
 FERGUSON, Palaces of Nineveh and Persepolis. 1 vol., 8vo., 1851.
 BONOMI, Nineveh and its Palaces. 1 vol., 8vo., 1853.
 BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
 ———— Geographische Inschriften Altaegyptische Denkmaeler.
 Vols. I—III (Brugsch). Vol. IV, in 2 parts (Dümichen).
 DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
 ———— 2nd series, 1869.
 ———— Altaegyptische Kalender Inschriften, 1866.
 ———— Tempel Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LANE, Manners and Customs of Modern Egyptians. 2 vols., 8vo.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ——— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar.
 ——— Arabic Chrestomathy. 1 vol., texts, and complete glossary.
 DELITZSCH, Assyrische Studien. Heft I, 1874
 SCHROEDER, Die Phönizische Sprache.
 HAUPT, Die Sumerischen Familiengesetze.
 SCHRADER, Die Keilinschriften und das Alte Testament, 1872.
 ——— Die Assyrische-Babylonischen Keilinschriften, 1872.
 RAWLINSON, CANON, Five Great Monarchies. 3 vols.
 ——— 6th and 7th do.
 OSBURN, The Monumental History of Egypt. 2 vols., 8vo.
 ——— The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841—1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824—30. (*Text only.*)

SOCIETY OF BIBLICAL ARCHÆOLOGY PUBLICATIONS.



The Bronze Ornaments of the Palace Gates from Balawat.

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Parts I, II, and III have now been issued to Subscribers, with some portion of the letterpress description by Mr. THEO. G. PINCHES.

In accordance with the terms of the original prospectus, the price for each part is now raised to £1 10s.

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It is proposed to issue the work in two parts:—Part I is now in preparation, and will be ready for issue about February next year. The price will be about 4s. for each part.

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

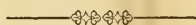
TWELFTH SESSION, 1881-82.

Third Meeting, 10th January, 1882.

ANNIVERSARY.

REV. CANON ST. VINCENT BEECHEY

IN THE CHAIR.



THE following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Society :—Proceedings. Vol. XXXIII. No. 216. November, 1881.

From the Royal Geographical Society :—Proceedings, and Monthly Record of Geography. Vol. IV. No. 1. 8vo. January, 1882.

From the Royal Institute of British Architects :—Transactions, Session 1880-1881. London. 4to. September, 1881. Proceedings, Session 1880-1881. London. 4to. July, 1881.

From the Anthropological Institute of Great Britain and Ireland :—Journal. Vol. XI. Nos. 1 and 2. 8vo. London. August and November, 1882.

From the North China Branch of the Royal Asiatic Society :—Journal. New Series. No. 15. 1880. 8vo. Shanghai.

From the American Oriental Society :—Proceedings at New Haven. October 26, 1881. 8vo.

From the Author :—*Histoire comparée des Anciennes Religions de l'Égypte et des Peuples Sémitique*. Par C. P. Tiele. Traduite du Hollandais par G. Collins, précédée d'une préface par A. Réville. Paris. 8vo. 1882.

The following has been purchased by the Council for the Library of the Society :—

Coins of the Jews. By Frederic W. Madden. Second Edition. London. 4to. 1881.

Received by the Society as Subscribers :—

From the Committee of Publication :—*Atti del IV Congresso Internazionale degli Orientalisti, tenuto in Firenze nel Settembre, 1878*. Volume Secondo. Firenze. 8vo. 1881.

From the Committee of Publication :—*Verhandlungen des fünften Internationalen Orientalisten-Congresses, gehalten zu Berlin im September, 1881*. Erster Theil. Berlin. 8vo. 1881.

The following were duly elected Members of the Society, having been nominated on December 6th :—

Lady Belcher, 26, Cumberland Terrace, Regent's Park, N.W.

Francis Llewelyn Griffith, Queen's College, Oxford.

Alfred Lionel Lewis, 35, Colebrooke Row, N.

Rev. A. H. Delmé Radcliffe, M.A., Holwell Rectory, near Hitchin, Herts.

Rev. Marlow Osmond Stevens, M.A., Anlaby, Weston-super-Mare. Whitewright Stuart, Turin.

The following were nominated for election at the next Meeting on February 7th :—

Rev. James Davy Dodgson, Victoria, Australia.

Rev. Elkanah Armitage, Waterhead, Oldham.

Miss C. J. Herbert, 20, Pelham Crescent, South Kensington, S.W.

Walter Frederick Walker, 483, Fulham Road, S.W.

Rev. J. N. Fradenburgh, Franklin, Venango, Co. Pa., U.S.A.

Herbert William Brockbank, Brockhurst, Didsbury, near Manchester.

Madame Uzielli, Hanover Lodge, Regent's Park, N.W.

SECRETARY'S REPORT

FOR THE YEAR 1881.

I ANNOUNCE with regret the loss, since the last Anniversary Meeting, held here on January 11, 1881, of some of the earliest Members of the Society, among whom may be mentioned Mariette-Pacha, J. Winter Jones, F.S.A., and the Rev. Canon James Ridgway, M.A., F.S.A.

In the Report for the year 1881, the actual increase in the Roll of names was announced as being thirty-two names. During the past year, 1881, forty-four Ordinary Members have been added to the list; while by death and withdrawal, twenty-seven Members have been lost during the same period.

The Roll now comprises :—

Ordinary Members	....	....	....	....	559
Public Libraries	....	....	....	....	31
					590
Foreign Honorary Members	....	....	....	....	35
					TOTAL
				....	625

The progress made by the Society, and the increasing interest taken in its proceedings by the members and the public, seems to give good reason for the confirmation of the opinion expressed in the last Report, that the ranks of those working at Biblical Archæology have been steadily and firmly increasing. The Excavations in Egypt and Assyria continue to open up an immense field of Historical and Mythological information. Those in Assyria, particularly, appear certain to afford an almost inexhaustible store of most valuable records, throwing a new light on the History and Civilization of the past, the value of which cannot be over-estimated. A new source of interest has been opened to us in the inscribed stones from Jerabis, identified by the late Mr. George Smith with the ancient Carchemish, the capital of the Hittites. These present a fresh field for investigation, and several efforts at their decipherment have been made; as mentioned in a subsequent paragraph, the Society will place these inscriptions before the Members in such a form as to facilitate future endeavours in this direction. It is evident that we are now only entering upon this portion of the History of Asia Minor; reports arrive from time to time of the discovery of new inscriptions carved upon the face of the rocks in many districts of this all but unexplored territory, and

when the time arrives that a systematic investigation is made—if only of a small portion—there seems every reason to believe that the result will be in every way commensurate to the labour.

An important communication was made to the Society in 1880 on this subject by Professor A. H. Sayce, in which he has collected all that is known from ancient authors concerning this nation or tribe. To this he added, during the last Session, a description and translation of the bi-lingual inscription found on the long-lost silver boss, bearing the name in the cuneiform character of Tarkondêmos, or, as it has been read by others, Tarkutimme. A paper was also read on the latter inscription by Mr. T. Tyler, M.A. Seventeen other communications have been read before the Society, many of them recording the newest discoveries in the studies for the elucidation of which the Society was founded. Amongst these may be mentioned those by the President:—The first, on an Egyptian Sepulchral Tablet preserved in the British Museum, of the period of Amenophis III, of the Eighteenth Dynasty; it was erected in memory of the twin “Superintendents of Works,” or Architects, Hor and Suti, who were attached to the construction of the Shrine of the Temple of Amen at Thebes. By the President also there has been laid before the Society descriptions of the recently-discovered Pyramids, including the greater portion of the hieroglyphic inscription of that of King Pepi, of the Sixth Dynasty, discovered at Sakkara; the whole of these were issued in a series of plates with the number of the Proceedings for June last. Information has been also supplied by him about the great discovery of Mummies, &c., at Deir el Bahari, of which numerous notices have from time to time appeared.

Professor Wright, LL.D., has communicated valuable notes on some of the Phœnician Inscriptions discovered during the year, and one letter of considerable interest on the name of the mound called Jerabis, settling, as it does, the correctness of this name. These will be found printed, with illustrations, in the various numbers of the Proceedings. Other members—for instance, P. Le Page Renouf, on the meaning of the word *Hoteḫ*; Dr. A. Eisenlohr, on an Egyptian Historical Monument relating to the Hyksos Kings; D. Pierides, in recording the discovery at Larnaka of the fragment of a Phœnician Inscription, to which Professor Wright adds the translation; also Theo. G. Pinches, Professor John Campbell, H. H. Howorth, F.S.A., and George Bertin—have contributed towards making this portion of the publications of the Society more permanently valuable, and, in so doing, assisted in carrying out the intention for which the series was originally commenced. I need only call your attention to the increasing size of these volumes year by year, and to mention that the numbers, issued as they are every month during the Session, form a convenient and permanent record of discoveries and points of interest to the Members.

To Prof. Lushington, D.C.L., &c., we are indebted for a paper, to be printed in the completing part of Vol. VII of the Transactions, on the Stèle of Mentuhotep, a favoured officer of Usertesen, the second king of the XIIth Dynasty. Dealing with the chronology of Egypt, and that of other ancient nations, two papers have been read by Ernest de Bunsen.

The communications gleaned from the records of Assyria have, as might have been expected, occupied a prominent position in the deliberations of the Society. To Theo. G. Pinches we are indebted for much matter on this subject, for the most part entirely new. His translations of the list of Babylonian kings, the result of Mr. Rassam's excavations on the site of ancient Babylon, are of no ordinary interest. This list, which includes the kings *c.* B.C. 1200 to 2000, has been printed, with the cuneiform characters, in the Proceedings for January, 1881, and will again appear in a future part of the Transactions with the remarks of Mr. Pinches; again, from the same writer, we have comments upon the recent discoveries of Mr. Rassam at Aboo-habba, or Sippara, including descriptions of the antiquities brought to light in the ruins of the temple of the sun god; the most important of which was a stone tablet giving an account of the building and restoration of the temple, and containing points of importance bearing upon Babylonian chronology. In the department of Hebrew studies the Rev. A. Löwy collected the notices in ancient Jewish writings on the sagacity and habits of ants, which illustrated in a most interesting manner observations in their habits which have recently attracted so much attention.

Some of the above communications have yet to be printed, but of those papers read before the Society, and printed in the second part of Vol. VII of the Transactions, the following may be indicated:—Tel-el-Yahoudeh (the Mound of the Jew), by Prof. T. Hayter Lewis, F.S.A., fully illustrated with coloured plates; Monuments of the Reign of Tirhakah, by Samuel Birch, D.C.L., &c., &c., President; A New Fragment of the History of Nebuchadnezzar III, by Theo. G. Pinches; A Description of the so-called Tomb of St. Luke, at Ephesus, by G. Weber, to which was added a letter from Edward Falkener (earlier communications on the same subject having been read before the Society in 1879, and printed in Vol. VI of the Transactions); the two papers already mentioned, by Prof. Sayce, on the Monuments of the Hittites, and the Bi-lingual Cuneiform and Hittite Inscription of Tarkondêmos; from Lieutenant-Colonel Warren, a dissertation on the site of the Temple of the Jews, with five plates, for the use of which the Society was indebted to the kindness of the author. Another illustrated paper is that by W. St. C. Boscawen, on the Egyptian and Assyrian Tablets carved upon the rocks at the Nahr-el-Kelb, or Dog River.

In the last Report submitted to the Society, it was mentioned that in order to meet the special requirements in printing papers on the inscribed stones from Hamath and Jerabis, the Council had determined, with the assistance of some Members interested in these inscriptions, to have a special series of characters prepared. A large number of these peculiar types have now been made, and, as will have been observed, were used in printing the paper by Professor Sayce. Improvements in the form of the characters will probably have to be made in this first attempt at their reproduction from the monuments, and it may be mentioned that it is the intention of the Council to add to those already obtained, from time to time, so that when required no difficulty will be found in printing these inscriptions in the same manner as those in other Oriental languages.

The third and completing part of Vol. VII of the Transactions is now nearly ready for issue. Some explanation of the delay seems necessary, and, as already stated by the Hon. Secretary, Mr. Cates, at the opening meeting of the Society of the present Session, this has in a great measure arisen from the wish to include in the series of plates illustrating the inscribed stones from Hamath and Jerabis, the inscription carved on the black basalt figure then *en route* for England. This stone has happily arrived, and we are in possession of the longest inscription so far known written in this strange character, which will be published with the others of the series, and thus complete a *corpus* of the inscriptions, which will, it is hoped, afford to those engaged in the attempts to decipher them greater facilities and aid than have yet been available to students.

Although in no way connected with the regular funds of the Society, it may be well to mention here the publication of the Bronze Ornaments of the Gates of the Temple at Balawat. With Part III has been issued the first portion of the description of this monument; Part IV will shortly be ready, leaving only Part V to complete the work, which will not be delayed longer than is necessary to make plates and text alike, as complete as possible. Besides this one, the Council has undertaken the publication of a work by Mr. Theo. G. Pinches. For some time the want has been felt of a series of texts in the Babylonian character, which, owing to there being no complete series of this form of type available, has not up to the present time been issued. The want will now be supplied, and from this work, the plates of which are drawn by Mr. Pinches himself, students will be enabled to make themselves acquainted with this form of cuneiform writing. A syllabary, carefully arranged for easy reference, will be added, and students cannot but feel much indebted to Mr. Pinches for the great pains he has bestowed in perfecting this laborious undertaking.

The increasing number and value of the works in the library of the Society has naturally caused a corresponding increase in the number of

Members who have availed themselves of the use of the books. Many friends have, by their kind donations of their own works and those of others, contributed towards realizing the wish expressed on the subject in the last Report. The Council have done what was in their power from the fund specially subscribed, and for which the best thanks of all are due, for the fitting up of the Library ; and also from the ordinary funds of the Society, so far as they felt justified, to add to the collection those works of more immediate necessity, for the use of the Members. Much still requires to be done ; but on looking over the Proceedings issued during the past year, it will be noticed how many and valuable have been the presentations—I am happy to be able to say, too numerous to specify here.

The audited Balance Sheet annexed shows that the funds available for the year 1881 have been £788 15s. 8d., and the expenditure in the like period £629 9s. 1d. The balance brought forward from 1880 having been £251 2s. 1d., the balance carried forward to the current year, 1882, is £159 6s. 7d., which is available to defray the cost of the third part of Vol. VII.

The Report and Balance Sheet having been adopted, Mr. Cust proposed, and Mr. Thomas Christy seconded, a vote of thanks to the President, Hon. Secretary, and Secretary for their valuable services to the Society during the past year. The Secretary was requested to convey to the President this expression of gratitude for all his efforts for the welfare of the Society since its foundation.

The Secretary read some notes on the Pyramid of Meydum, with a translation from the French of the manner of the discovery by Professor Maspero of the entrance gallery to this Pyramid.

The following Officers and Council for the current year were elected :—

COUNCIL 1882.

President.

S. BIRCH, D.C.L., LL.D., F.S.A., &c.

Vice-Presidents.

REV. FREDERICK CHARLES COOK, M.A., Canon of Exeter.
 REV. GEORGE CURREY, D.D., Master of the Charterhouse.
 SIR HARDINGE STANLEY GIFFARD, M.P., Q.C., &c.
 The RIGHT HON. W. E. GLADSTONE, M.P., D.C.L., &c.
 SIR WILLIAM GREGORY, C.B., G.C.S.I., &c.
 The RIGHT HON. THE EARL OF HARROWBY, K.G., D.C.L. &c.
 The RIGHT REV. J. B. LIGHTFOOT, D.D., &c., Bishop of Durham.
 WALTER MORRISON.
 CHARLES T. NEWTON, C.B., D.C.L.
 SIR CHARLES NICHOLSON, BART., D.C.L., M.D.
 REV. GEORGE RAWLINSON, D.D., Canon of Canterbury.
 SIR HENRY C. RAWLINSON, K.C.B., D.C.L., F.R.S., &c.
 VERY REV. ROBERT PAYNE SMITH, Dean of Canterbury.
 SIR ERASMUS WILSON, LL.D., F.R.S.

Council.

ROBERT BAGSTER.	PROF. T. HAYTER LEWIS, F.S.A.
REV. CHARLES JAMES BALL, M.A.	REV. ALBERT LÖWY.
REV. CANON BEECHEY, M.A.	J. MANSHIP NORMAN, M.A.
THOMAS CHRISTY, F.L.S.	F. G. HILTON PRICE, F.G.S.
ROBERT CUST, F.R.A.S.	P. LE PAGE RENOUF.
BARON DE COSSON.	JOSEPH SIDEBOTHAM, F.S.A.
JAMES FERGUSON, D.C.L., &c.	VILLIERS STUART, M.P.
C. DRURY FORTNUM, F.S.A.	REV. HENRY GEO. TOMKINS
CHARLES HARRISON, F.S.A.	PROF. W. WRIGHT, LL.D.
	REV. W. WRIGHT, B.A.

Honorary Treasurer.

BERNARD T. BOSANQUET.

Secretary.

W. HARRY RYLANDS, F.S.A.

Honorary Secretary.

ARTHUR CATES.

Hon. Secretary for Foreign Correspondence.

REV. A. H. SAYCE, M.A.

Honorary Librarian.

WILLIAM SIMPSON, F.R.G.S.

The following Letter has been received :—

MY DEAR DR. BIRCH,

CAMBRIDGE, 26th Dec., 1881.

When I last saw you, you asked me to give you my reading of three ancient seals, recently added to the collections in the British Museum. I have now much pleasure in doing so.

1. Crystal signet, inscribed



לנחמיהו } (*Belonging*) to *Nēḥemyāhū*,
 בן מיכיהו } or *Nehemiah, the son of*
Mikhāyāhū, or *Micaiah*.

Both names are Biblical and well known. This seal seems to me to be very old, probably pre-exilic.

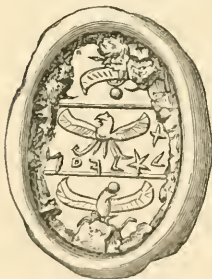
2. Chalcedony cone, inscribed



לשחרחר בן } (*Belonging*) to *Shēharḥôr*,
 זפניהו } the son of *Ṣēphanyāhū*,
 or *Zephaniah*.

The father's name is Biblical and well known. That of the son does not occur in the Old Testament as a proper name, but its feminine *שְׁחַרְחֹרֶת*, *shēḥarḥōreth*, is found in the Song of Songs, chap. i. 6, in the sense of *swarthy* (compare the Latin name *Fuscus*). This stone is, I think, not quite so old as the preceding one.

3. An agate scaraboid, with winged figures, inscribed



לאליעם } (*Belonging*) to *'Elīām*.

This name is also Biblical. The recurved tail of the *yōdh* ז seems to have been swallowed up by the line drawn under the letters. This gem may belong to about the same period as No. 2.

Yours very truly

WM. WRIGHT.

The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, February 7th, 1882, at 8 p.m., when the following paper will be read :—

By the REV. WILLIAM HOUGHTON, M.A., F.L.S.:—"On the Birds of the Assyrian Records and Monuments."

SOCIETY OF BIBLICAL ARCHÆOLOGY PUBLICATIONS.



The Bronze Ornaments of the Palace Gates from Balawat.

[SHALMANESER II, B.C. 859–825.]

EDITED, WITH AN INTRODUCTION, BY

SAMUEL BIRCH, Esq., D.C.L., LL.D., F.S.A., &c.



Parts I, II, and III have now been issued to Subscribers, with some portion of the letterpress description by Mr. THEO. G. PINCHES.

In accordance with the terms of the original prospectus, the price for each part is now raised to £1 10s.

Texts in the Babylonian Wedge = writing.

Being a series of carefully autographed plates, copied from tablets written in the Babylonian character only; compiled by THEO. G. PINCHES, of the Department of Oriental Antiquities, British Museum.

The design of the Author is to furnish students with the means of making themselves acquainted with the Babylonian style of writing, and to this end the texts, which will be of high value and interest, will be accompanied by as complete a syllabary of the Babylonian characters as can now be made, arranged in a convenient form for reference.

It is proposed to issue the work in two parts:—Part I is now in preparation, and will be ready for issue about February this year. The price will be about 4s. for each part.

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

- BOTTA, Monumens de Ninive. 1847—1850.
 PLACE, Ninive et l'Assyrie, 1866—1869. 3 vols., folio.
 FERGUSSON, Palaces of Nineveh and Persepolis. 1 vol., 8vo., 1851.
 BONOMI, Nineveh and its Palaces. 1 vol., 8vo., 1853.
 BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
 ———— Geographische Inschriften Altaegyptische Denkmäler.
 Vols. I—III (Brugsch). Vol. IV, in 2 parts (Dümichen).
 DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
 ———— ———— 2nd series, 1869.
 ———— Altaegyptische Kalender Inschriften, 1866.
 ———— ———— Tempel Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LANE, Manners and Customs of Modern Egyptians. 2 vols., 8vo.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ———— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar.
 ———— Arabic Chrestomathy. 1 vol., texts, and complete glossary.
 DELITZSCH, Assyrische Studien. Heft I, 1874.
 SCHROEDER, Die Phönizische Sprache.
 HAUPT, Die Sumerischen Familiengesetze.
 SCHRADER, Die Keilinschriften und das Alte Testament, 1872.
 ———— Die Assyrische-Babylonischen Keilinschriften, 1872.
 RAWLINSON, CANON, Five Great Monarchies. 3 vols.
 ———— ———— 6th and 7th do.
 OSBURN, The Monumental History of Egypt. 2 vols., 8vo.
 ———— The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841—1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824—30. (*Text only.*)

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

TWELFTH SESSION, 1881-82.

Fourth Meeting, 7th February, 1882.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.



HENRI ADRIEN PREVOST DE LONGPERIER, born at Paris, 21st September, 1816; died at Paris, 14th January, 1882.

It is with the greatest regret that the Society has to record, since the last Meeting, the death of M. de Longperier, one of the Honorary Members of the Society, so well known as an antiquary and numismatist, and whose numerous works record his devotion to the subjects of his study.

The following Presents were announced, and thanks ordered to be returned to the Donors:—

From the Royal Geographical Society:—Proceedings and Monthly Record of Geography. Vol. IV. No. 2. February, 1882.

From the Royal Asiatic Society of Great Britain and Ireland:—Journal. Vol. XIV. Part 1. 8vo. January, 1882.

From the Royal Institute of British Architects:—Proceedings, Session 1881-1882. London. Nos. 7 and 8. 4to. 1882.

[No. XXIX.]

From the Archæological Institute of Great Britain and Ireland :—
The Archæological Journal. Vol. XXXVII. No. 148A. 8vo.
London. 1881.

This number is entirely devoted to the Catalogue of the
Exhibition of Helmets and Mail held in June, 1881. It is
illustrated with fifteen carefully executed plates.

From the Palestine Exploration Fund :—The Quarterly Statement,
January, 1882. 8vo.

From the Service de Conservation des Antiquités de l'Égypte :—
La Trouvaille de Deir-el-Bahari, vingt photographies par M.
E. Brugsch ; texte par G. Maspero. Le Caire. 4to. 1881.

From Dr. C. T. Stanton :—Die Assyrisch-Babylonischen Keilinschriften. Kritische untersuchung der grundlagen ihrer entzifferung von Prof. Dr. Eberhard Schrader. Leipzig. 8vo. 1872.

From the Author :—La Bible et les découvertes modernes en
Palestine, en Égypte et en Assyrie. Par F. Vigoureux, Prêtre de
Saint-Sulpice. Troisième édition, revise et augmentée. 4 vols.
Paris. 8vo. 1882.

From the Author :—Die grosse Darius-Inschrift am felsen von
Behistun, transscription des Babylonischen Textes nebst ueber-
setzung und commentar von Carl Bezold. 8vo. Leipzig. 1881.

From the Author :—The Astral Hebrew Alphabet. By the Rev.
J. H. Broome. London. 8vo. 1870.

Reprinted from the "Astronomical Register," Dec., 1870.

From the Author :—The Astral Origin of the Emblems, the
Zodiacal Signs, and the Astral Hebrew Alphabet. By the Rev.
J. H. Broome. London. 4to. 1881.

From the Author :—The Mummies of the Deir-el-Bahari. By
Samuel Birch, D.C.L., &c., &c., *President*. 8vo. London.
1881. "Time," No. 33, December, 1881.

From Thomas Stainton :—Engraved View of Jerusalem.

The following has been purchased by the Council for
the Library of the Society :—

Les Mastaba de l'Ancien Empire, fragment du dernier ouvrage de
A. Mariette, publié d'après le manuscrit de l'auteur, par
G. Maspero. Livraison I, fo. Paris, 1882.

The following were elected Members of the Society, having been nominated on January 10th :—

Rev. James Davy Dodgson, Victoria, Australia.

Rev. Elkanah Armitage, Waterhead, Oldham.

Miss J. C. Herbert, 20, Pelham Crescent, South Kensington.

Walter Frederick Walker, 483, Fulham Road, S.W.

Rev. J. N. Fradenburgh, Franklin, Venango, Co. Pa., U.S.A.

Herbert William Brockbank, Brockhurst, Didsbury, near Manchester.

Madame Uzielli, Hanover Lodge, Regent's Park, N.W.

The following were nominated for election at the next meeting, March 7th :—

John Macvicar Anderson, 6, Stratton Street, W.

Peter Bicker-Caarten, 30, Northumberland Place, Bayswater.

Albert Terrien de Lacouperie, 85, Kennington Road, S.E.

Rev. Herman Douglas, M.A., Edmondthorpe Rectory, Oakham, Leicestershire.

Mrs. Forbes, Sokia, near Smyrna.

Heinrich Lhotzky, Karstemois, Dorpat.

P. Zimmerman, Leipzig.

A Paper on the Birds of the Assyrian Records and Monuments was read by the Rev. W. Houghton, M.A., F.L.S., &c. :—

After some remarks on the general subject, such as the sources and value of the materials available for ascertaining the names of birds known to the ancient Assyrians, whether evidence afforded by actual figures on the monuments, by the historical Inscriptions, or by the Bilingual and Trilingual Lists, Mr. Houghton proceeded to a consideration of some of the various Bird-names which occur. As to the value of the sources, the information afforded is generally scant, and the allusions in the historical records are few and vague. Most of the evidence required in seeking to determine the meaning of each particular bird-name is of a philological character, and depends on the supposed derivation of the word, which in the case of Assyrian has to be referred to Hebrew or Arabic, or some other cognate Semitic language. This evidence is sometimes satisfactory and conclusive, at other times uncertain, and occasionally it is quite misleading. The

Accadian representatives of the Assyrian names often help us considerably to the identification of the bird denoted ; but, unfortunately, the tablets are often mutilated.

As might have been expected, onomatopœia played a considerable part, both in the Accadian and Assyrian names. The ancient inhabitants of these lands had their *cu-cu-u* birds and their *dic-dic-i* birds just as we have. Philological evidence, Mr. Houghton said, is often of considerable value in the determination of birds' names. It is an important factor in the solution of the equation, but it is not the only one. The evidence should be in accordance with natural history facts. The species with which any name is identified should either be now found in the required area, or there should be no improbability of its having once occurred there, although not at present recorded as occurring.

Concerning much we lack information. What kinds of domesticated birds did these people keep? What kinds were used as food? Was falconry practised? did they employ clap-nets, or use the throw-stick, like the Egyptians? Did they keep song birds? These are questions which can only now and then be partially answered.

After a sketch of the ornithological fauna of Assyria and the adjoining countries, Mr. Houghton proceeded to the consideration of bird-names which occur in the records. Vultures and eagles are frequently mentioned ; they are also frequently depicted in battle-scenes, and are spoken of generally as the "birds of heaven," which build their nests on rocky and inaccessible places. Eagles are not generally distinguished by name from vultures ; the same term may include both the *Vulturidæ* and the *Falconidæ*, though sometimes a particular bird is distinguished by a definite name. For instance, the word *na-as-ru* (𐎠𐎢𐎶 𐎠𐎢𐎶 𐎠𐎢𐎶) may either denote the griffon vulture, or some kind of large eagle ; while, on the other hand, the *ka-ri-ib bar-kha-a-ti*, i.e., "the antelope attacker," probably points definitely to the Lämmergeier, or bearded vulture (*Gypæëtus barbatus*, and the *'e-ru-ul-lu* or *ca-ti-ma-tuv*, "the impure rapacious bird," is perhaps the Egyptian vulture of disgusting habits. Of the Strigidæ, owls are frequently mentioned. The great eagle owl (*Bubo ascalaphus*), and the little wailing owl (*Scops giu*), may be respectively the *es-se-bu* or *khu-ši*, "Prince + Horned Bird" (Accad.), and the *mar-ra-tuv*, or "mournful owl," of the Assyrian column. Of the order Picariæ, woodpeckers (*Picidæ*) are definitely mentioned, as

the *an-pa-tuv* "the waving bird" (Heb. בִּנְיָה), in allusion to the undulating mode of flight, or as the *du-si bar-mat* (?), "the variegated tapping bird," referring to the noise occasioned by the taps of the bird's beak on the stem or trunk of a tree. Its Accadian name is *giš-sir khu*, "woodbright," or simply "bright bird," and may well denote either the common black and white *Picus syriacus*, or other species known to exist in these lands. Another name, *ci-li-luv* or *cu-li-li*, also expresses in one of the Assyrian columns the woodpecker's note. The cuckoo is the Assyrian *kha-zu-u* or *khu-u-ku*, whether the great spotted species or our common bird. By the Accadians it seems to have been regarded with favour, and was called *su lu*. Can this mean "the bird beneficial to man" ?

The swallow is known by various names, some of which are imitative ; it is the *sinuntu* of the Chaldean Deluge Tablet. The Accadian name of *khu-bir ba-cu gusur-ra*, "the insect bird which makes its nest (?) or sits on the beams" of houses and other places, is admirably definite, as is also its other Accadian name of *gun-gil*, "the tail-closer." Among the *Sylviadæ* or warblers, the reed-warbler or the 'sedge-warbler is likely to be denoted by the *tsi-nun-du* (*tsi-tsil-du*) (?), or *its-tsur gi-zi*,* "the warbling bird of the reeds"; while the *bul-bul* or nightingale may be the Assyrian *tsu-la-mu* or *its-tsur mu-si*, "bird of the shade or of the night."

Among the *Sturnidæ*, or starlings, may be mentioned the common starling, denoted evidently by the Accadian *sib-tur*, or "little shepherd bird," and by the Assyrian *al-lal-luv*. Another shepherd bird is named as the *ri-hu*; this is perhaps the rook. The *Pastor roseus* is the *eribu* of the Assyrians.

Of the *Corvidæ*, the raven is the *a-ri-bu*, or *kha-khar*—imitative again, like our word "crow." The hooded crow is the *pa-hû* or *ka-ka-nu*, both onomatopœic. The *pu-dhu-ur i-ni*, or "picker out of the eyes," or "eye-splitter," would suit both these *Corvidæ*.

Several doves or pigeons' names are mentioned, one of the most interesting of which is that of the turtle-dove, which in Accadian has the pretty name of "eye-bright" or "eye-star," *igi-mul*. Of the *Otididæ*, the *šudinnu*, or *gilgidanu*, "the long-legged pouch (?) bird," is probably the great bustard (*Otis tarda*). The *a-ba-mi-ya*, or

* The text is not very clear ; the characters read as *ci-i-si*, or *ti-i-si*. I think *gi-zi* may be intended.

um-mi mi-i, "mother of waters," perhaps is the *Tantalus falcinellus*, or even the *Ibis religiosa*, though now not found in Western Asia. The Assyrian *its-tsur li-mut-ti*, "bird of evil," is perhaps the great eagle owl. The buff-backed heron, *Ardea russata*, nearly always seen with cattle, and often on their backs, is probably the Accadian *Ua (khu)*    , "cattle-bird," which exactly answers to the name "cow-bird," used to designate this species of heron. The swan among the *Anseres* is probably denoted by the *'e-zi-zu* (strong bird) and *cu-ni-pu* (wing bird), and was used as food. Of the *Struthiones*, the ostrich is both figured on the monuments, and mentioned in the lists; it is the *gam-gam-mu*, *ša-ka-tuv*, and *si-ip a-rik* of the Assyrians, the *giri-gid-da* of the Accadians, the whole meaning "the long-legged well-disposed bird."

Among the *Pelicanidæ* the *Pelicanus onocrotalus* has been well referred by Dr. Delitzsch to the *a-ta-an nâri*, "the she-ass bird of the rivers," in allusion to its harsh and unpleasant cry, which resembles the bray of the animal which has given one of its names to the bird.

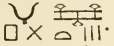
The names of many other birds were also considered, and Mr. Houghton concluded by saying that all the names mentioned, so far as he has been able to get access to them, would be discussed and published in the Society's Transactions. Thanks were voted to Mr. W. H. Rylands for his kindness in executing the diagrams which illustrated the Paper.

Remarks were added by Rev. A. Löwy, Theo. G. Pinches, J. Park Harrison, G. Bertin, and the President.

The following Communication has been received from Mr. P. le Page Renouf:—

WRONG VALUES COMMONLY ASSIGNED TO HIEROGLYPHIC GROUPS.

The phonetic values of most of the hieroglyphic signs have now for a long time been established on evidence which is plain and unambiguous to all inquirers. With reference to certain signs (*e.g.*, the negative ) the evidence is of a more complex character, and may easily be misinterpreted by a hasty student. I wish now to speak of some values which are certainly false, and in the present state of our knowledge absolutely inexcusable.

1. All Egyptologists used to believe in the god *Ap-heru*; there is now a strong tendency to call this divinity *Ap-mātennu*. Neither of these names were known to the ancient Egyptians. The hieroglyphic form of the name is . Now, it is quite true that one of the phonetic values of  is *her*, and that the sign was often used to express the name of the god Horus. But the phonetic value of the feminine group  is not *her*, nor is it *mātennu*, but  *uat*. *Mātennu* is a masculine noun, as everyone knows who has read the journey in Syria, described in the Anastasi Papyrus. It appears there over and over again, accompanied by the masculine article, in such passages as *bu reχ-ek pa mātennu*.

The name *ap-mātennu* was suggested by the invocation in Todt., I, 13. It would have been well to notice that in this very invocation a distinction is made between  and *mātennu*, and to bear in mind such ancient instances as  (*Aelteste Texte*, pl. 6, line 9), and the very frequent formula  (Sharpe, *Inscrip.*, I, 78; II, 86; and elsewhere).

The mischief has arisen from the slovenly and unscholarlike habit of neglecting the feminine termination.

[The god Keb is another, whose divinity it is high time to explode. There is indeed authority for  but this is merely a scribe's ignorant blunder for , Seb.

The god Khem must, I believe, equally disappear from the list of divinities.

I produced evidence some years ago showing that the phonetic value of , according to variants of Todt., 17, 12, is  *imes*. The papyrus of Netemet (belonging to the Prince of Wales) is another authority in favour of this reading. But I think it in the highest degree probable that the only variant which can be quoted in favour of the reading *Khem* is also to be read like the others. The Berlin papyrus of Keka, according to Lepsius (*Aelteste Texte*, p. 34), reads . Instead of , we should surely read , the phonetic values of which are

  (Todt., 145, 7, 8, 20, or  (Mariette, *Karnak*, pl. 47, a), *âmes*. The name of Keka's father on this payprus is moreover written  (*Nes-âmes*), and, as it ends in *s*, cannot possibly be read Nes-khem.]

2. The group , commonly transcribed *sib*, is really ideographic. Neither  nor  will ever be found as variants of it. It is not an abbreviation, as M. de Rougé says in his *Chrestomathie* (232). Except in royal titles, where the context precludes the possibility of a mistake, abbreviations are absolutely unknown in Egyptian orthography. And  never stands for the letter *b*. The sign , which often forms part of the group, is not a phonetic complement, but a determinative both of sense and of sound. The evidence on the subject is as complete as possible.

a. In the ancient lists one of the usual offerings is written   (*Denkm.*, II, 35, 67, 69),   (*ib.* 44, 58, 92, 145; III, 260),   (*ib.* II, 28, 35), and   (*Älteste Texte*, p. 37).

b. The following are variants of a formula very frequent on tablets of the XIIth Dynasty:—

       Louvre, C, 3.

       Rougé, *Album Photographique*, No. 146.

       Sharpe, *Inscriptions*, I, 86, line 6.

       „ „ I, 78, line 7.

               Sharpe, *Inscriptions*, I, 78, line 15.

       Sharpe, *Inscriptions*, I, 78, line 25.

       „ „ II, 86, line 5.

       „ II, 95, line 1.

From these and other variants (e.g., Dümichen, *Kalender-inschriften*, pl. 43; Mariette, *Catalogue des Monuments d'Abydos*, 133), we obtain the results $\overline{\Delta} = \text{bird} \overline{\Delta} = \text{bird} \text{---} = \text{bird} \overline{\Delta} = \text{mas}$. Dr. Birch in his Dictionary refers for the word $\text{bird} \overline{\Delta}$ to Rosellini, *Mon. Storici*, 59, 3, where on an early monument of the XVIIIth Dynasty we find $\text{bird} \text{---} \{ \text{bird} \text{---} \text{---} \text{---} \}$, "presentation of all beautiful and pure flowers."

There is no pretext here for imagining that $\text{bird} \overline{\Delta}$ is to be read *em-seb* or *māseb*. A curious text at Abydos (see Mariette, I, pl. 33) is well calculated to give a death-blow to such a supposition. It consists of a table of offerings. Under each offering is a short address to King Seti I, containing a play upon the name of the object. That under $\overline{\Delta}$ *meset* is $\overline{\Delta} \text{---} \text{bird} \text{---} \text{---} \text{---} \text{---}$.

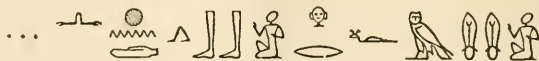
The obvious meaning of the verb $\overline{\Delta}$, $\text{bird} \overline{\Delta}$ or $\overline{\Delta}$ in the text just quoted is "stretch out,"* and it bears the same relation to the cognate noun $\overline{\Delta} \Delta$ that the Latin *pandere* does to *passus*. The sun-god on the tablet of Hor-em-heb (British Museum, 551) is called "the unresting one," $\text{bird} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---}$ "swift-step, of wide stretched paces." This passage is a reminiscence of the Book of the Dead (92, 2), where the god is called $\text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---}$. A comparison of these two passages brings $\overline{\Delta} \Delta$ into close connection with $\text{bird} \text{---} \text{---} \text{---}$ *maset*, a foot or leg.

It is now easy to understand the use of the determinatives in $\overline{\Delta} \text{---}$ or its variant $\text{bird} \text{---} \text{---} \text{---}$. The sign Δ is symbolical of the notion of *stretching*, as in the word $\text{---} \overline{\Delta}$ *pet*, which signifies

* One of the variants of the formula is $\text{bird} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---} \text{---}$ Mariette, *Cat.*, 203.

† The papyrus of Nebseni gives $\text{bird} \text{---} \text{---} \Delta$ as the variant of $\Delta \text{---}$.

stretch.  or  must be considered as determinative of the sound *mes*, representing either a single limb or the two limbs. If it be objected that  is nowhere else used ideographically, I beg to quote a well-known passage of the Ritual, which in the *Älteste Texte* (pl. 42, line 41) is thus written:—



And it may be remembered that in another passage of the Book of the Dead (125, 48) two organs of locomotion are mentioned together, the *χent* and the *maset*.

Another instance is to be found in the word     *meses* * (*Zeitschr.*, 1867, p. 54). *Mesesbeb* is as impossible a word in Egyptian as it is in Greek.

c. One of the forms of the verb is               

Another and more ancient instance of reduplication will be found in the tomb of Peher at El Kab (*Denkm.*, III, 10). The oxen say "we are quick in transporting,"    . The first  is a preposition which gives the gerundial sense to the expression. The word governed by it is   . Whence does the latter  come if the verb is *seb*? [I do not, however, absolutely rely upon this text, the faulty inversion of signs being so very common an occurrence.]

The numerous meanings attached to the syllable *mes* as represented by the sign  (including               , and its reduplicated forms) are in general easily traced to the original sense of *stretching out*, as in *pandere*, *passus*, our word *pass*, with its various senses, such as handing over, transporting, passing the sea, passing time, passing a limit, surpassing. This latter sense has not yet been generally recognized, but it is the true sense of  in several passages of the Book of the Dead, where the plain meaning is *superare*, *overcome*, *conquer*, as in 1, 3; 59, 3; 60, 3.    is "crines *passi*," dishevelled hair. An interesting question arises as to the use of   *māsi*, in the sense of an interrogative pronoun *who*, *which*, *what*? The analogy of a Semitic pronoun may perhaps suggest the way to an answer.

The pronoun *man*, , , , like the preposition *min*, appears to be connected with , , , and other kindred words, the original sense of which is *division*, *parting*. The pronominal use, both in Egyptian and Semitic, appears to be connected with the notion of partition:       *māsi pu ātfā* "who is my father"? is the exact equivalent of   .

3. The most indefensible reading which I know is *Hashep*, or *Hashop*, as the name of the famous queen of the XVIIIth Dynasty, otherwise known as Hatasu. I can understand scholars having a doubt as to the accuracy of this latter name; but *Hāšop* is demonstrably wrong, according to the most elementary principles of decipherment. The queen's name was a very common one in ancient times, and it is generally found written     (see Mariette, *Catalogue*, 223 [three times], 235, 252); but sometimes

 (see *ibid.*, 308, 320). The sign  has, therefore, a syllabic value, of which  is the final consonant. The very common adjective  is from the earliest times written indifferently with or without the phonetic complement . Thus,  (*Denk.*, II, 149 c.),  (*ibid.*, c. d.),  (*ibid.*, 71, 93),  (*ibid.*, 118 d.),  (*ibid.*, 130)  (*ibid.*, 125, line 203). The instances are numberless, and will not be disputed. On the obelisks of the queen (*Denkm.*, III, 22) we have  "the sacred Persea tree," and in the same phrase  (37, a).

The reduplicated form of the word is , which is extremely frequent from the earliest times of the language.

Now, if the value of  whilst ancient Egyptian was a living language, was *šep*, how, in the first place, can  have this value; and, secondly, how could the reduplicated form of the word *šep* be ? Those who adhere to the hypothesis are bound to solve these two difficulties. But their solution is simply impossible.

The value *ās* which used to be generally admitted is based upon variants.

Certain copies of the fifteenth chapter of the Book of the Dead give the reading  (line 15); others give .

Secondly, in a very common form of adjuration, "those who pass by this funereal monument,  her *ās pen*," are entreated to say a prayer for the departed. Several inscriptions, instead of , have the forms  or . In addition to the instances quoted by Mr. Goodwin (*Zeitschr.*, 1867, p. 84), and Dr. Lauth (1868, p. 42), I will quote the following from Mariette's *Catalogue des Monuments d'Abydos*;  p. 235;  p. 322; and  p. 326. The three different determinatives here

used prove that  as a noun does not signify "a statue," or "sitzende Bild," but has the more general sense of a "funereal monument."

Brugsch and Goodwin have undoubtedly proved that in the texts of the latest times  was used with the value  *šep*. But this value has no more connection with that of the older period than the values *ta* and *t* of  have with the value *χeper*. Mr. Goodwin has shown that the word *šep* signified image or statue. To write the word *šeps*, the letter  was added to the picture of a statue, and in this way a new group  was formed. But there is no proof of the antiquity of the word *šep* in the sense of "image," and it is most probably a quite modern form of the older .

The reduplicated forms of , *šep*, are  *šepēp*, and  *šepēš*.

Šeps cannot be considered as a reduplication of *šep*; but even if this could be admitted,  would, on this hypothesis, be the full reduplication. We know, however, that  is the simple form, and that  is the true reduplication.

Now, I do not affirm that any one of the arguments in behalf of *ās* is in itself unassailable. It is not impossible that in Todt., 15, 15, we may have to do not with phonetic variants, but with different readings. The same possibility recurs in reference to the funereal adjuration;  may, like *māhāt* or the name of some other monument, have been put in place of the usual . But the probability of either of these suppositions is indefinitely diminished by the following considerations. First, the substitute of the syllable *ās* in one of these series of variants is precisely the same as in the other and perfectly independent series; secondly, this syllabic value *ās* is perfectly consistent with such forms as , , ; and, thirdly, the Coptic *ⲁϥⲟⲩ pretium*, has its natural explanation in the ancient , which no one, I am sure, can be justified

in identifying phonetically with   (Denderah, III, pl. 49. Fourthly, compare   and  .

The hieratic form of the group, which I believe to be correctly represented by M. Pierret as , speaks most powerfully in favour of the value *ās*.  by itself has the value *ās*. I believe it is this sign, and not , which is used in the hieratic orthography of this group. The latter sign is never used, to my knowledge, otherwise than as a determinative at the end of words, except in the base period, or when it is put as an equivalent of .

P.S.—The last number of the *Zeitschrift* contains an article by Dr. Erman, which has induced me to withdraw for a time an onslaught which I had made on the phonetic value of the sign . I am not convinced by Dr. Erman, but the arguments of so admirably scientific a scholar deserve the most respectful consideration. In the same number of the *Journal* Dr. Ebers (p. 67, *note*) defends the value *ās* for , and produces the important reading      from a new copy by M. Golenischeff of the tablet of Una.

The following Communication from Professor Wright, was read, and Photographs of the Inscription exhibited:—

REMARKS ON THE SILOAM INSCRIPTION.

Considering the interest which attaches itself to the inscription discovered by Mr. C. Schick, in June 1880, at the Pool of Siloam, I am surprised that no notice has as yet been taken of it in the publications of our Society. Having recently had occasion to examine it with some care, and with the assistance of two eminent German Orientalists, Professors Euting and Noeldeke of Strassburg, I may be allowed to offer the following remarks, which lay no claim whatever to originality. For fuller details I refer the reader to Part VII of the Oriental Series of the Palæographical Society, which will appear this spring.

The first important publication on the subject was Mr. Sayce's pamphlet, *The Ancient Hebrew Inscription discovered at the Pool of Siloam in Jerusalem*, 1881; more valuable are the articles by Dr.

Guthe and Professor Kautzsch in the *Zeitschrift des Deutschen Palästina-Vereins*, vol. 4, 1881, pp. 102-119, 250-259, and 260-272. The shorter notices by J. Derenbourg in the *Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres*, for 1881, pp. 97-100 and 199-205, and by J. Halévy, as reported in the *Revue Critique* for 17th Oct. 1881, are also well deserving of study.

The transcription is as follows. Asterisks denote missing letters. Doubtful letters are marked with a stroke.

- (1) * * * הַנְּקֵבָה . וְזֶה . הִיָּה . דְּבַר . הַנְּקֵבָה . בַּעֲדֹ * * *
- (2) * * * * * * * * * *
הַגְּרֹן . אֵשׁ . אֵל . רְעוּ . וּבַעֲדֹ . שְׁלֹשׁ . אִמָּת . לְהַנְּקֵבָה
ע . קָל . אֵשׁ . ק
- (3) * * * * * * * * * *
רָא . אֵל . רְעוּ . כִּי . הִיָּת . זֶדֶה . בַּצֵּר . מִיָּמִן . * * * * *
- (4) * * * * * * * * * *
נִקְבָּה . הַכּוּ . הַחֲצֵבִים . אֵשׁ . לִקְרֹת . רְעוּ . גְּרֹן . עַל .
גְּרֹן . וּלְכֹד .
- (5) * * * * * * * * * *
הַמִּים . מִן . הַמּוּצָא . אֵל . הַבְּרֵכָה . בְּמֵאֵתִים . וְאַלְף .
אִמָּה . וּמֵאָה
- (6) * * * * * * * * * *
ת . אִמָּה . הִיָּה . גִּבָּה . הָצֵר . עַל . רֹאשׁ . הַחֲצֵבִים .

The letters of this inscription much resemble those of the stêlê of king Mēsha', but are more modern, and exhibit more practice and skill in writing. Observe the easy swing of the *ינמכ* and *ל*, and the little flourishing hooks of *ז* and *צ*. *ט* and *ס* unfortunately do not occur. We shall probably be not far wrong in assigning this inscription to the time of Hezekiah, circa B.C. 700. Compare 2 Kings xx. 20, 2 Chron. xxxii. 30.

The punctuation is the same as in the Moabite Stone, a point after each word. The orthography too is much the same. *Scriptio defectiva* of the long vowels prevails, even in *ים* and *קָל*, where we might have expected *יום* and *קוּל*, on account of the original form being *yaum* and *kaul*, Ar. *قَوْلٌ*, *يَوْمٌ*. In *עוד* and *מוצא* the *ו* is in its proper place, the one being originally 'aud and the other *mauša'*, from *מִצָּא* = *Μῠθᾶ*: Final vowels are expressed

by יוה, as יָהּ, אֶמֶה, הָיָה, יוה. The *aleph* in מֵאֵתִים and ראש is etymologically correct, as מֵאֵתִים stands for מֵאֵתִים and ראש for רֹאשׁ, אֶס. הֵיִת in line 3 is probably to be read הָיִת, and not הֵיִתָּה (see 2 Kings ix. 37, *kēthibh*); else why should the engraver not have written the final ה? לָקֵרֶת in line 4 does not stand for לָקֵרֶאת, but seems rather to be לָקֵרֶת, infin. of קָרָה.

Two words in this inscription do not occur in the Old Testament, viz., נִקְבָּה, and זֹרָה in line 3. The sense of the former is clear, both from the context and the cognate languages (Ar. نَقَبٌ *digging through, a hole, a pass, or defile*, نَقَبَةٌ *a hole*, Syr. نَمَطٌ *a hole, cave, mine*), not to mention the common Hebrew word נִקְבָּה.* Pronounce therefore נִקְבָּה or נִקְבָּה. The meaning of the other word, זֹרָה, is very obscure, as its root is not exactly known to us, and the context does not cast a distinct light upon it. It seems most probably to mean a *crack* or *fissure*.

We may therefore translate as follows :—

- (1) . . . *the breaking through. And this was the matter (or account) of the breaking through. While yet*
- (2) *the pickaxe, one towards the other, and while yet there were three cubits to the voice of one call-*
- (3) *ing to the other, for there was a cleft (?) in the rock on the right And on the day of the*
- (4) *breaking through, the miners hewed, one to meet the other, pickaxe against pickaxe ; and flowed (lit. went)*
- (5) *the waters from the source to the pool over (a space of) one thousand and two hundred cubits. And one hund-*
- (6) *red cubits was the height of the rock above the head of the miners.*

At the beginning of the first line, Derenbourg has supplied תְּמָה, *is finished*; while Halévy prefers בִּים, *on the day of*. In the second line, it must remain doubtful whether we are to suppose a full point

* It can hardly be necessary to remind the reader that זָכָר and נִקְבָּה get their meaning from the conformation of the genital organs (cf. *hasta, rima*).

after **אל רעו**, as Kautzsch and Halévy have done, or not. As to the lacuna in line 2, the letter after **לה** may be either **נ** or **נ** or **פ**. The **ע** at the end of the gap seems to indicate that one of the lost words was **וישמע** (Derenbourg).

The inscription was obviously set up by the miners to commemorate their successful meeting, after they had started from opposite ends of the projected tunnel or aqueduct. It has nothing whatever of an official character, otherwise its form and style would probably have been very different, and it would have been set up in a more conspicuous place.

WM. WRIGHT.

The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, March 7th, 1882, at 8 p.m., when the following papers will be read:—

By P. LE PAGE RENOUF:—"Egyptian Mythology, Mist and Cloud."

By WM. FLINDERS PETRIE:—"Notes on Pottery and Implements collected at Giseh and the neighbourhood from December, 1880, to June, 1881."

By A. L. FROTHINGHAM, JUN.:—"Note on an Hebrew Inscription at Ravenna."



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- BOTTA, Monuments de Ninive. 5 vols., folio. 1847-1850.
 PLACE, Ninive et l'Assyrie, 1866-1869. 3 vols., folio.
 BRUGSCH-BEV, Grammaire Démotique. 1 vol., folio.
 ———— Geographische Inschriften Altaegyptische Denkmäler.
 Vols. I-III (Brugsch). Vol. IV, in 2 parts (Dümichen).
 DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
 ———— 2nd series, 1869.
 ———— Altaegyptische Kalender Inschriften, 1866.
 ———— Tempel Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LANE, Manners and Customs of Modern Egyptians. 2 vols., 8vo.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ———— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar.
 ———— Arabic Chrestomathy. 1 vol., texts, and complete glossary.
 DELITZSCH, Assyrische Studien. Heft I, 1874
 SCHROEDER, Die Phönizische Sprache.
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 ———— 6th and 7th do.
 OSBURN, The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841-1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824-30. (*Text only.*)
 CHABAS, Mélanges Égyptologiques. 1862-1873.
 ———— L'Égyptologie. Tomes I and II, 1874 and 1875.
 MASPERO, Du genre épistolaire chez les Égyptiens de l'époque
 Pharaonique. 8vo. Paris, 1872.
 ———— De Carchemis oppidi Situ et Historia Antiquissimæ.
 8vo. Paris, 1872.

SOCIETY OF BIBLICAL ARCHÆOLOGY PUBLICATIONS.



The Bronze Ornaments of the Palace Gates from Balawat.

[SHALMANESER II, B.C. 859-825.]

EDITED, WITH AN INTRODUCTION, BY

SAMUEL BIRCH, Esq., D.C.L., LL.D., F.S.A., &c.



Parts I, II, and III have now been issued to Subscribers, with some portion of the letterpress description by Mr. THEO. G. PINCHES.

In accordance with the terms of the original prospectus, the price for each part is now raised to £1 10s.

Texts in the Babylonian Wedge = writing.

Being a series of carefully autographed plates, copied from tablets written in the Babylonian character only ; compiled by THEO. G. PINCHES, of the Department of Oriental Antiquities, British Museum.

The design of the Author is to furnish students with the means of making themselves acquainted with the Babylonian style of writing, and to this end the texts, which will be of high value and interest, will be accompanied by as complete a syllabary of the Babylonian characters as can now be made, arranged in a convenient form for reference.

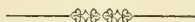
It is proposed to issue the work in two parts :—Part I is now in preparation, and will shortly be ready for issue. The price will be about 4s. for each part.

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

TWELFTH SESSION, 1881-82.

Fifth Meeting, 7th March, 1882—a special.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.



THE President announced with regret the decease, since the last Meeting, of Dr. T. R. Robinson, F.R.S., and Mr. J. Peckover.

The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Society :—The Proceedings. Vol. XXXIII. No. 217. December, 1881. 8vo. London. 1882.

From the Royal Geographical Society :—Proceedings, and Monthly Record of Geography. Vol. IV. No. 3. March, 1882.

From the Geological Society :—The Quarterly Journal. Vol. XXXVIII. Part I. No. 149. 8vo. London. 1882.

From the Royal Institute of British Architects :—Proceedings, Session 1881-1882. Nos. 9 and 10. London. 4to. 1882.

From the Archæological Institute of Great Britain and Ireland :—The Archæological Journal. Vol. XXXVIII. No. 152. 8vo. London. 1881.

[No. xxx.]

From the Rev. A. Löwy :—The Babylonian Talmud, in 12 Vols., folio, as follows—

I. Berachoth.	Frankfort-on-Main.	1721.
II. Shabbath.	Amsterdam.	1715.
III. Pesachim.	„	1716.
IV. Rosh-hashanah	„	1717.
V. Jebamoth	„	„
VI. Gittin,	Frankfort-on-Main.	1720.
VII. Baba Kama	„	„
VIII. Baba Bathra	„	„
IX. Sandhedrin	„	„
X. Sebachim	„	1721.
XI. Chullin	„	1718.
XII. Niddah	„	1720.

From the Rev. A. Löwy :—Cyclopædia Bibliographica. By James Darling. London. 8vo. 1854.

From Dr. C. T. Stanton :—Wo lag das Paradies? eine Biblisch-Assyriologische studie mit zahlreichen Assyriologischen Beiträgen zur Biblischen Länder- und Völkerkunde und einer Karte Babyloniens, von Dr. Friedrich Delitzsch. Leipzig. 8vo. 1881.

From the Author :—Chapitres supplémentaires du Livre des Morts. 162 to 174. Traduction et Commentaire publiés d'après les Monuments de Leide, du Louvre et du Musée Britannique, par le Dr. W. Pleyte. Leide. 3 Parts. 1881–1882.

From the Author :—Suggestions on the Formation of the Semitic Tenses. By G. Bertin, M.R.A.S.

Reprinted from the Journal of the Royal Asiatic Society. New Series. Vol. XIV. Part 1. 1882.

From the Author :—Sculptured Tope on an old Stone at Dras, Ladak. By William Simpson, F.R.G.S.

Reprinted from the Journal of the Royal Asiatic Society. New Series. Vol. XIV. Part 1. 1882.

From Thos. Stainton :—Engraved View of Jerusalem. Hoefnagle. 1560.

Engraved Plan. Palestina sive Terre Sancte descriptis : Romæ. Apud Joannem Franciscum vulgo della Gatta. 1557.

The following were elected Members of the Society, having been nominated on February 7th:—

John Macvicar Anderson, 6, Stratton Street, W.

Peter Bicker-Caarten, 30, Northumberland Place, Bayswater, W.

Albert Terrien de Lacouperie, 85, Kennington Road, S.E.

Rev. Herman Douglas, M.A., Edmondthorpe Rectory, Oakham, Leicestershire.

Mrs. Forbes, Sokia, near Smyrna.

Heinrich Lhotzky, Karstemois, Dorpat.

P. Zimmerman, Leipzig.

The following were nominated for election at the next Meeting on May 2nd:—

Rev. William Barnard, B.A., Alveston Vicarage, Stratford-on-Avon.

Robert A. Bellman, 38, Cawley Road, South Hackney, E.

Alfred Kemp Brown, B.A., Arundel Lodge, Unthinks Road, Norwich.

Alexander George Ellis, B.A., Suthrey House, Mortlake, S.W.

Dr. Paul Haupt, 12, Friedländer Weg, Göttingen.

General Pitt-Rivers, F.R.S., 4, Grosvenor Gardens, S.W.

Rev. Frederick William Ragg, M.A., Masworth Vicarage, Tring.

Mrs. Warne, Penn Hill, Yeovil.

A Paper was read by P. Le Page Renouf—"Egyptian Mythology, Mist and Cloud."

The mythology of ancient Egypt, like that of the Indo-European races, has its origin, not in any religious, metaphysical, or ethical ideas, but in a childlike observation of natural phenomena. The Egyptian gods are personifications of the earth and sky, of the sun, moon, and stars, of light and darkness, and of all powers of nature (such, for instance, as the Nile inundation) which make their appearance in regular and unvaried succession. The notion of fixed and unchangeable law is essential to the conception of the Egyptian *natar*. Hence phenomena such as clouds, rain, wind, and storm, which did not appear to obey any fixed law, do not seem ever to have been deified. These meteorological phenomena nevertheless have their place in the mythology, and an attempt is now made for the first time to point out some of the most important myths derived from the meteorology of Egypt. The writer of this paper, after

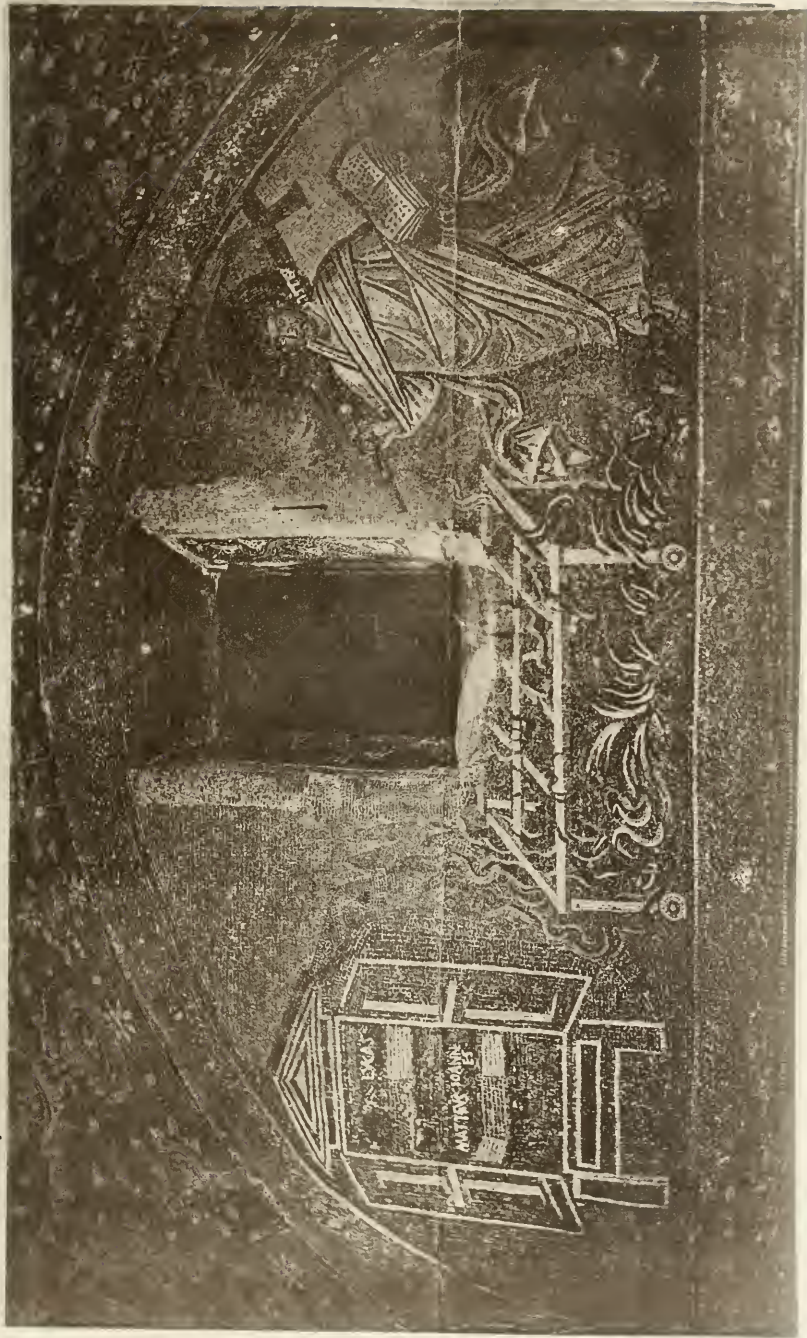
giving what he considers a more accurate view than has yet been recognized of the nature of the gods Shu, Tefnut, Isis, Nephthys, Neith and Hathor, explains, among other matters, what is meant by the blood flowing from Rā as he hastens to his slaughter, Isis stanching the blood of Horus, the sycamore of Mafka, the olive tree of Ptah, the sycamore of Nut, the "mystery of Osiris at Philae," the veils of Isis, Thoth, and Rā, the companions of Set, or the "locks of Typhon," the serpent on the hill of Buchat, and the great dragon Apepi. The place which Fire occupies in this mythology is very important, but the numerous texts relating to it have yet to be scientifically examined. Some interesting points, however, may even now be established.

Remarks were added by, Rev. C. J. Ball, C. J. Morrison, Rev. A. Löwy, P. le Page Renouf, and the President.

A Communication was received, by W. Flinders Petrie, on Pottery and Implements collected at Gisch and the neighbourhood, from December, 1880, to June, 1881:—

To avoid confusion, it was stated at the commencement of these notes that the general result arrived at (with exception of certain pottery of the IVth Dynasty and scraps of blue and green ware from tombs), all the specimens seen and collected, dated from after the Persian conquest, and were nearly all domestic. No pottery was found that can with any reason be assigned to the period between the Vth and the XXVIth Dynasties. The reason for the late date of the pottery seemed to be that the old Egyptians inhabited the valley, and it was only from some special causes of later times that villages were placed on the hills; hence their domestic pottery would most likely be found by deep digging under the Nile mud, in old sites such as Memphis. It would be well, Mr. Petrie thought, in considering these remains, to bear in mind that the following common criteria are not applicable here: The rougher pottery is not the earlier, some of the best made pottery of all is that certainly of the IVth Dynasty, and the worst is that containing blue beads, and therefore probably made after the Psammetic tombs had been rifled. Stone implements are of a late period.

The various sites examined were described, as well as the different forms of pottery discovered, the sites being taken in their supposed chronological order.



MOAIC, 5TH CENTURY, MAUSOLEUM OF THE EMPRESS GALLA PLACIDIA, RAVENNA.

The following Communication has kindly been forwarded to the Secretary by Professor William Wright, LL.D. :—

PALAZZO BONAPARTE, PIAZZA VENEZIA, ROME,

DEAR SIR,

January 28th, 1882.

I wish to call the attention of your readers to a Hebrew inscription of great antiquity and interest, newly discovered in a Christian mosaic of the fifth century. It has been neither newly excavated, nor recently uncovered, but always exposed to the view of every visitor to Ravenna, remaining all the while entirely unnoticed, although it is wonderfully distinct and well preserved. The mosaic in question forms part of the decoration of the mausoleum of the Empress Galla Placidia, built by her between A.D. 432 and 440. The vaults and walls of this chapel, which is built in the form of a Latin cross, are entirely covered with large mosaic compositions. In the one which adorns the upper end of the cross, and consequently occupies the most prominent position, we see a figure in which most modern critics recognize St. Laurence, although others think that it represents the Christ. But we do not propose to enter into this discussion, nor to describe the mosaic. We will only say that the figure holds in its right hand an open volume, and in its left hand a processional cross, which, leaning on the left shoulder, projects past the head over the right side of the figure. In that part of the upright branch of the cross which is close to the head, and enclosed within the limit of the nimbus, we see distinctly several Hebrew letters, about three centimetres in length. They are formed of white cubes, while those of the cross and nimbus are gilt. These letters form the word אֲדֹנָי *Adonai*, "Lord," a word considered by Christian interpreters of the O. T. to stand for Christ. The letters are distinct, and in the square alphabet, but two of them do not show all the desired regularity. During the fourteen centuries which have elapsed since its execution, the mosaic must have needed restoration more than once, and it is to this cause that we must attribute these irregularities, which besides may be easily explained if we hold to the probable opinion that the restorers had lost sight of the intrinsic value of the letters, and considered them simply as serving to separate the nimbus from the cross. In the *aleph* we see that, in order to form a continuous line with the contour of the nimbus, the restorer, making the mistake of placing the nimbus in front of the cross, must have removed some cubes

from the lower part of the diagonal line of the letter, and placed them above, where they are superfluous. In the two following letters, *daleth* and *nun*, there is nothing irregular, but the *yodh* has an unusual form—the perpendicular stroke is lengthened so as to make it resemble a *vau*. Furthermore, over the *nun* there is a point which we would recognize as a *cholem*, were it not almost impossible that the Masoretic vowel-system should have been used at this early time. Its presence is difficult to explain, and I must leave it to learned philologists to decide this point. I would venture, however, to suggest that the vowel-system, as we now have it, was probably not complete from the very beginning, but was of gradual formation. No mention of it is made in S. Jerome, or the Talmud, but at the end of the sixth century the two rival vowel and accent-systems were already complete in the Babylonian and Tiberian Nikkud-books of the Rabbis Acha and Mocha. Before them, however, and a few years also before our mosaic inscription, the first elements of the doctrine of the vowel-points seem to have appeared in the great Nikkud-book of Rabbi Ashe (†426). This movement at the beginning of the fifth century might possibly receive from this inscription an important confirmation.

The first vowel-signs were perhaps those which accompanied consonants not followed by one of the vowel-letters, and those which expressed the *scriptio defectiva*: the vowel-letters themselves did not need any points. Thus in our inscription neither the *aleph* nor the *nun* (on account of being followed by *yodh*) needed vowel-points, the only essential one being the *cholem*, which is necessary to express the defective mode of writing, on account of its derivation from אֵלֶּךְ. It is, besides, probable that the first words whose pronunciation would be minutely determined among the Jews were precisely the divine names. In considering the probability of the presence of vowel-points in inscriptions—a thing which has been thought not to occur until late—it would be also necessary to remember that a mosaic inscription approaches more nearly in character to a MS. than to a cut inscription, and must therefore take quite an exceptional position.

The accompanying fac-simile, reduced from a tracing, will furnish a sure proof of the genuineness of the inscription. Its discovery came about in this way. During last summer a friend of mine, Mr. W. K. Williams, while examining the photograph of this mosaic, felt certain that he discovered in it a



Hebrew inscription; but he did not succeed in reading it, as he had only a slight knowledge of the letters. On his communicating this to me, and showing me the photograph, the first glance at it enabled me to recognize, without doubt, the word *Adonai*. Consequently, Mr. Williams had an exact coloured tracing made of that part of the mosaic, and last Sunday (22nd January) he read a communication on the subject before the Society of the "Cultori dell' Archeologia Christiana" of Rome, by whom it was most favourably received, and the inscription was accepted without question by the distinguished members of the Society, including Commend. G. B. de Rossi, Padre L. Bruzza, &c. As however he treated the subject from an artistic and archæological point of view, I would here call attention to the linguistic importance of this inscription. Its rarity, and so to speak its unique character, consists in its being the only Christian Hebrew inscription in mosaic, either in the East or West, and probably the earliest known Hebrew inscription of any kind above ground in the West; for there may be others of equal antiquity in the Jewish cemeteries of Italy. It has the great merit of having a known date attached to it, and belongs to a period when, among the Jews themselves, the renaissance of Hebrew in palæography had not yet begun. This is clearly shown, for example, by the inscriptions of the Jewish cemetery of Venosa, the earliest of which, belonging, perhaps, to the fourth and fifth centuries, are in Greek: it is only towards the sixth century that we begin to notice purely Hebrew inscriptions.

A. L. FROTHINGHAM, JUN.

Thanks were returned for these communications.

The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, May 2nd, 1882, at 8 p.m., when the following paper will be read:—

REV. A. LÖWY.—"Notes on Glass, according to Ancient Jewish Records."

SOCIETY OF BIBLICAL ARCHÆOLOGY PUBLICATIONS.



The Bronze Ornaments of the Palace Gates from Balawat.

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SAMUEL BIRCH, Esq., D.C.L., LL.D., F.S.A., &c.



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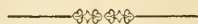
It is proposed to issue the work in two parts:—Part I is now in preparation, and will shortly be ready for issue. The price will be about 4s. for each part.

PROCEEDINGS
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TWELFTH SESSION, 1881-82.

Sixth Meeting, 2nd May, 1882.

SAMUEL BIRCH, D.C.L., LL.D., &c., PRESIDENT,
IN THE CHAIR.



The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Society :—The Proceedings. Vol. XXXIII. No. 218. London. January, 1882.

From the Royal Geographical Society :—Proceedings, and Monthly Record of Geography. Vol. IV. Nos. 4 and 5. 8vo. London. April and May, 1882.

From the Royal Asiatic Society :—The Journal. New Series. Vol. XIV. Part II. 8vo. London. April, 1882.

From the Royal Institute of British Architects :—Proceedings, Session 1881-1882. Nos. 11, 12, and 13. 4to. London. 1882.

From the Palestine Exploration Fund :—The Quarterly Statement. 8vo. London. April, 1882.

From the Victoria Institute :—The Journal of the Transactions. Vol. XV. 8vo. London. 1882.

From the Archæological Institute of Great Britain and Ireland :—The Archæological Journal. Vol. XXXIX. No. 153. 8vo. London. 1882.

From the American Oriental Society :—The Journal. Vol. XI. No. 1. 8vo. New Haven. 1882.

The American Antiquarian and Oriental Journal. Vol. IV. No. 2 (No. XIV). 8vo. Chicago. January, 1882.

Contains articles on Ancient Temple Architecture, by Rev. Stephen D. Peet, and on the Hittite Inscriptions, by John Campbell, M.A., &c.

Report of the Third International Geographical Congress, Venice, September, 1881. By Lieut. G. Kreitner, Delegate of the N. China Branch of the Royal Asiatic Society. 8vo. 1882.

Le Muséon, Revue internationale, publiée par la Société de Lettres et de Sciences. Tome I. No. 2. Louvain. 1882. 8vo.

Contains article by C. de Harlez, "Cyrus, était-il roi de Perse ou de Susiane?"

From the Author :—Dizionario di Mitologico Egizia, R. V. Lanzone, Seconda Dispensa, con XLVIII Tavole. 4to. Torino. 1882.

From the Author :—Les origines de l'histoire d'après la Bible et les traditions des peuples orientaux. Par François Lenormant. Tome deuxième, 1^{re} partie. L'humanité nouvelle et la dispersion des peuples. 8vo. Paris. 1882.

From the Author :—The Law of Kosmic Order, an investigation of the physical aspect of Time. By Robert Brown, jun., F.S.A. London. 8vo. 1882.

From the Author :—Otium Norvicense, pars tertia. Notes on select passages of the Greek Testament, chiefly with respect to recent English versions. By Frederick Field, M.A., LL.D. 4to. Oxford. 1881.

From the Author :—Les fouilles de M. de Sarzec en Mésopotamie ; Antiquités Chaldéennes. Par J. Menant.

Reprinted from the *Gazette des Beaux Arts*.

From the Author :—Light and Darkness, &c. By the Rev. Alfred Jones, B.D. 8vo. London. 1881.

From W. Morrison :—Tent Work in Palestine, a record of Discovery and Adventure. By Claude Reignier Conder, R.E. 2 vols. 8vo. London. 1878.

The following have been purchased by the Council for the Library of the Society :—

- Description of the East and some other Countries. By Richard Pococke, LL.D., F.R.S. 2 vols. Folio. London. 1743-45.
- Travels through Different Cities, etc., and several parts of Asia, as far as the banks of the Euphrates. By Alexander Drummond. Folio. London. 1754.
- Travels in Ethiopia. By G. A. Hoskins. 4to. London. 1835.
- Sandys Travailes. The Sixth Edition. Folio. London. 1658.
- Rudiments of a Vocabulary of Egyptian Hieroglyphics. By Samuel Sharpe. 4to. London. 1837.
- The Palaces of Nineveh and Persepolis, restored by James Ferguson. 8vo. London. 1851.
- Nineveh and its Palaces. By Joseph Bonomi, F.R.S.L. Second Edition Revised. 8vo. London. 1853.
- Travels and Researches in Chaldea and Susiana, &c. By William Kennett Loftus, F.G.S. 8vo. London. 1857.
- The Monumental History of Egypt. By William Osburn, R.S.L. 2 vols. 8vo. London. 1854.
- The Religions of the World. By William Osburn. 8vo. London. 1857.
- Memoranda illustrative of the Tombs and Sepulchral Decorations of the Egyptians. 8vo. London. 1822.

The following were elected Members of the Society, having been nominated on March 7th :—

- Rev. William Barnard, B.A., Alveston Vicarage, Stratford-on-Avon.
- Robert A. Bellman, 38, Cawley Road, South Hackney, E.
- Alfred Kemp Brown, B.A., Arundel Lodge, Unthinks Road, Norwich.
- Alexander George Ellis, B.A., Suthrey House, Mortlake, S.W.
- Dr. Paul Haupt, 12, Friedländer Weg, Göttingen.
- General Pitt-Rivers, F.R.S., 4, Grosvenor Gardens, S.W.
- Rev. Frederick William Ragg, M.A., Masworth Vicarage, Tring.
- Mrs. Warne, Penn Hill, Yeovil.

The following were nominated for election at the next Meeting, 6th June :—

Samuel Bird, 15, Sussex Place, Victoria Road, Kensington, W.

R. P. Greg, Buntingford, Herts.

E. H. C. Stephenson, Lympham Manor, Weston-super-Mare.

The Rev. A. Löwy read the following paper, entitled
“ Notices concerning Glass in Ancient Hebrew Records.”

The Hebrew word *Zēchuchith* זְכוּחִית is employed to denote “glass.” Whether it has this signification (in Job xxviii, 17), or whether it relates to some precious stone, is a debateable question. The word *zēchuchith* means a pure substance, and does not imply transparency. The Phœnicians, though credited with the invention of glass, have not left any other records except the names of some makers of glass vessels. On some Phœnician relics occurs the name of Artas the Zidonian. Whether the Jews, as neighbours of the Phœnicians, were manufacturers of glass during the Biblical period of their history, cannot be proved by any relics. M. Longpérier published in 1856 the drawing of a vase in opaque white glass,* which was brought from the East by M. Péritié, the Chancellor of the French Consulate at Beyrout, and he suggested that this was a Jewish glass vessel, in which case it must be of a post-biblical period.

Of glass which came from Assyrian excavations, the British Museum has several specimens : one of B.C. 700 bears the inscription of Sargon. A more direct insight is given by the Egyptian monuments, where we have pictorial representations of glass-making. The earliest relic brought from Egypt bears the inscription of Thothmes III, and was made B.C. 1,500. The Coptic name of glass, *Badjein* or *Abadjein*, and some variations of this word, have no connection with Semitic words. The Coptic names of the substances of which glass is made are likewise unconnected with Semitic vocables, sand being called in Coptic *sha* and nitre *hasmen* ; whilst the Hebrew for sand is *chol* (חֹל), and for nitre *nether* (נֶתֶר), corresponding with the Greek and Latin *νιτρον* and *nitrum*.

In the Aramaic dialects glass is called *zegugitha*, or *zugitha*, from which is derived the Arabic *zajaj*. In the Aramaic languages *zug* has

* “ Bulletin Archéologique de l'Athénæum Français.” 1856. January, p. 4.

the meaning of glass-like lustre, but this may be a secondary meaning. It is more likely that the glassmakers introduced the name *zugitha* from *zug*, "a combination," inasmuch as glass is the result of a combination of sand and soda. The Arabs have given a wide extension to the word *zajaj* or *zağag* amongst Mahomedan nations. But amongst the Aryan Mahomedans in India, in Persia, in Kurdistan, as also among the Turks, glass is called *shisha*. In Hebrew *shésh* or *sháyish* is the name of marble, and may eventually have been used in the signification of glass. Whether glass was in the earliest days manufactured in Palestine or not, glass vessels must have been known to the Jews. This is not to be inferred from the circumstance that the Palestine Exploration Fund has brought to light numerous fragments of glass vessels, for such vessels may have been made at a late period, but it is an indubitable fact that the Phœnician traders, according to the testimony of the Bible (Proverbs xxxi, 24, and Hosea xii, 8), constantly came to Judæa to offer their wares. Israelite women liked to adorn their necks with glass beads; specimens of such ornaments occur in the tombs of the Egyptians and the Etruscans. Among the treasures which Dr. Schliemann discovered at Hissarlik, the so-called site of Troy, and again in the graves of Mycenæ, Egyptian or Phœnician glass beads have been found. Even beneath the lakes of Switzerland, where the pale-buildings of ancient inhabitants have been brought to light, glass beads were discovered, which none but Phœnician traffickers could have carried to Switzerland, just as they brought them into the lands of the ancient Britons. No doubt can, therefore, exist that the Hebrews of the earliest date were fully acquainted with articles made of glass. With the commodity itself the names of variously shaped vessels wandered more or less from one country to another, and many of those names may have reference even to glasswares. The Hebrew word *hin* (הִין), a well-known small measure, may be identical with the Egyptian *han*, a vessel. The Hebrew word *cad*, a pitcher, appears to be identical with the Latin *cadus*, and perhaps with the Arabic *qadah*. The word *qab* (קַב), a small measure (2 Kings, vi, 25), which is continually employed in Rabbinical writings, must have been known to the ancient Syrians. Their descendants, the Nestorians, still call a cup *bash-qab*, literally an "upper cup." The Greek *κυπελλον*, the French *coupe*, the Italian *coppa*, the Dutch *kop*, and the diminutive form occurring in *goblet*,

seem all to indicate the migration of the term *qab* from land to land ; also the Hebrew word *lōg* seems to reappear in the Greek *λαγηνος*, in the Latin *lagena*, and in the Rabbinical *lagin*, *lagina*, or *laginta*. The Rabbinical word *zcluchta*, in Hebrew *zeloichith*, signifies a glass bottle, and is mentioned in the Talmud in connection with the holding of perfume. The words *baté hanéfesh* (Isaiah iii, 20) have been rendered by some translators as perfume-bottles (literally "breath cases"). That these perfume-bottles were generally of glass, is made evident by the numerous specimens which are preserved in the British Museum, in the Louvre, and in other great museums. The luxurious use of perfume, so severely reprov'd by the prophet Isaiah, is very strong evidence that although the name of glass remains unmentioned, glass vessels must have been among those which are mentioned in the Hebrew Scriptures.

Referring to the post-biblical records of the Jews, Mr. Löwy drew attention to the Targum of Jonathan on Deut. xxxiii, 19, where it is stated that the excellency of the sand in the land possessed by Zebulun fitted this substance particularly well for the manufacture of glass, a statement which derives some corroboration from the account which Pliny gives of the same district. With regard to nitre, *i.e.*, soda, the Talmud drew attention to the superiority of the substance exported from Egypt over that which was found near Antipatris, in the vicinity of Cæsarea, near the Mediterranean Sea. In the Rabbinical period glass was manufactured in Judæa. The apparatus for glass making, and the shops where the articles were retailed, were carefully mentioned by the Rabbins. They enumerated various articles of glass, such as beads, *choliōth shel zechuchith* (חוליות של זכוכית), lanterns, *fanēs* (פנס), which the Persians adopted in the word *fānus*, from the Greek *φανος*. They term a glass plate, *tabla* (טבלא) ; a common glass dish, *skutla* (סקוטלא), from the Latin *scutella* (hence the English word scuttle). The Rabbins also speak of several other objects of glass relating to domestic and ornamental uses. Particular notice is taken by them of the manufacture of much-prized *white glass*. This species, which perhaps was iridescent, is stated to have disappeared at the destruction of the first Temple ; but probably for the "first" the "second" should be substituted. As an article of display, the ancient Jewish teachers spoke of glass in connection with their proverbial sayings. One of them remarked that the

acquisition of knowledge is as difficult as gold, and the loss of acquired knowledge may be as rapid and irrecoverable as an article of glass when broken. But another observer shrewdly remarked upon the same subject, "The broken article can be pieced together, and the negligent student can make amends." Concerning an heir of property, it is stated that if he wished to get rid quickly of his fortune, he could best do so by dressing in rich silks, by indulging in the purchase of articles of glass, and by employing work-people without looking after them.

In conclusion, Mr. Löwy mentioned a statement from the Talmud which stands in connection with one of the Jewish customs of the present day. Rab Ashi, in celebrating the nuptials of his son, went to the extremes of hilarity. His colleagues, to bring him back to sober earnestness, took a glass, obviously of high price, and breaking it before him, they attained their object (*Berachoth*, folio 31a). The mediæval glossator of this passage observes that such a practical admonition gave rise to the existing custom of breaking a glass at Jewish weddings. In Mr. Löwy's opinion the custom was derived, like many other Jewish usages, from the prolonged intercourse of the Jews with the Romans.

Remarks were added by Canon Beechey, J. Park Harrison, F. G. Hilton Price, F. D. Mocatta, Rev. A. Löwy, and the President.

A Paper was read by Mr. George Bertin, on the "Rules of Life among the Ancient Akkadians":—

After a few remarks on the progress of Assyriology since the first attempts at translation, Mr. Bertin noticed that there were in the British Museum several tablets belonging to the same series, the real meaning of which had escaped translators when dealing with the tablets separately, but which is quite clear when the series is taken as a whole. These tablets give precepts for the conduct of man in his various occupations: one treats of the duties of the agriculturist, another of the duties of man towards his family, and so on. It was the contents of one of these tablets that had been selected by Mr. Bertin as the subject of his paper.

First, the child is declared to be of age, and after the ceremony of emancipation he became a citizen, paying tribute and answerable for

his own actions. After a break of a few paragraphs comes the question of marriage, and, according to the tablet, it is the father who negotiates this important affair; the first wife could not be other than a free born maiden. The paragraph following next, and treating of the betrothal, is much mutilated, but seems to speak of the various kinds of marriages; as a wedding gift the young man was to give a drinking vessel, which was no doubt the one used at the marriage ceremony; after the ceremony he received the dowry.

The first duty of the young married man was to build a shrine, and when this was finished he could then enjoy his honeymoon. On the birth of his first child it was placed in the shrine. After a few paragraphs relating to the education of the child and his being taught to read inscriptions, the last act of paternal authority is to find a wife for the son, and when this is done the father and son come under the common law.

The text then gives some definitions as to the laws touching the relationship of the son and father and mother, and also about the duties of masters towards their servants.

Mr. Bertin then gave as a complement to the above, an interesting tablet confirming his views; it had been transcribed and translated by Mr. Pinches, who communicated it to him, and contained the statement of a woman claiming her dowry, in which she gave the history of her matrimonial life; her request was granted by the judges.

Remarks were added by Rev. A. Löwy, Mr. Bertin, and the Secretary.

The President, in remarking on some points of the paper, referred to the small number of students of Assyrian Archæology. The Society had to thank many kind friends for valuable communications dealing with the History, Geography, or Language of the ancient inhabitants of Mesopotamia, and it was the hope of the Council, and no doubt of the Members of the Society, that they might have from time to time papers like that just read, illustrating the lives of the people themselves, and also some notice of their works of art. A study of *figured antiquity* of the Assyrians was required to make clear many points of interest in their history. For example, it might be said that except the names being mentioned in the texts, little or nothing is known about the gods of Assyria.

The following Communication has been received from Professor T. Hayter Lewis:—

MY DEAR MR. RYLANDS,

Since I wrote my paper upon "Tel-el-Yahoudeh," I have visited Egypt again, and been to the Tel in company with Mr. Greville Chester. Dr. Grant had arranged likewise to go, but was prevented doing so at the last moment by a professional engagement.

I had his plan with me on the spot, and was surprised that he had been able to make so good a one, considering the extremely irregular surface of the ground. I am sorry to say that the Arabs (who appear not to be under any control) have made, and are making sad destruction with the ancient remains.

The large cisterns or baths still remain intact, but the descending passage (the part of the ruins which I was most anxious to explore) was not to be found, and I was told that it was buried under the *débris*, and that the alabaster blocks with which it was lined had been torn away and burnt into lime. The digging of the Arabs has, however, opened out some more remains, *e.g.*, many pieces of mosaic tiles, fragments of statues, columns, &c., showing that the walled enclosure comprised buildings of a grander type and more extensive scale than I had supposed.

East of the "mound with ancient tiles," as marked on Dr. Grant's plan, we found a granite statue of Rameses III.

Near "the statue of kneeling priest" (in the bend of the road), is a basalt cistern, six feet four inches by three feet eight inches, and, close to it, a granite half-column (*i.e.*, cut longitudinally from top to bottom through its centre) two feet six inches in diameter, of papyrus or lotus stalks, and with the bud capital as found at Beni Hassan, Karnak, &c. This half-column is very unusual, and if it had been of limestone, I should have thought that it was an old one cut into two in later times.

A round bowl-shaped (but solid) piece of granite, four feet three inches in diameter and two feet six inches in thickness, suggests the idea of its having been cut off from the bottom of a column. But the cutting both of this and the half-column must have been so difficult that I think that the forms are original.

The most important work however, not shown on Dr. Grant's plan, is a fine wall of well-dressed limestone blocks, in the inner side of and parallel with the "double wall," which forms the east side of

the enclosure. This limestone wall is, in fact, a continuation of that shown by Dr. Grant at the south-east angle of the mound, and must have been built at a very early period, as it is at a great depth below the level of the double wall, which itself bears signs of being ancient. In the "double wall" there is a large circular bastion, near the point marked by Dr. Grant as "Keep." It would thus appear that the space originally enclosed, whatever its purpose or date, had on the east side and part of the south side, a solid stone wall of good masonry. That the upper part of this wall was afterwards ruined and buried, together with the whole or the greater part of the building, and that upon the site of the wall were constructed the great mound and the crude brick fortification which surmounted it is clear.

The earliest dates which appear on any of the cartouches or the tiles, statues, or other parts, are those of Seti I, Menepthah II, and Rameses III. But the papyrus referred to in my paper gives the further date of Rameses II, who appears to have erected a "guard house" at the Tel. The *latest* date is probably that of the tiles, which have Greek letters at the back.

Yours very truly,

T. HAYTER LEWIS.

Thanks were returned for these communications.

The next Meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, June 6th, 1882, at 8 p.m., when the following Papers will be read:—

I. BY E. LUND:—"The Epoch of Joseph: Amenhotep IV as the Pharaoh of the Famine."

II. BY PROF. A. H. SAYCE:—"The Decipherment of the Hittite Inscriptions."

Mr. Bird has kindly sent for exhibition his picture of an Assyrian War-horse, with trappings, &c., restored from the monuments in the British Museum.

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.



- BOTTA, Monuments de Ninive. 5 vols., folio. 1847-1850.
 PLACE, Ninive et l'Assyrie, 1866-1869. 3 vols., folio.
 BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
 ————— Geographische Inschriften Altaegyptische Denkmäler.
 Vols. I-III (Brugsch). Vol. IV, in 2 parts (Dümichen).
 DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
 ————— 2nd series, 1869.
 ————— Altaegyptische Kalender Inschriften, 1866.
 ————— Tempel Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LANE, Manners and Customs of Modern Egyptians. 2 vols., 8vo.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ————— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar.
 ————— Arabic Chrestomathy. 1 vol., texts, and complete glossary.
 DELITZSCH, Assyrische Studien. Heft I, 1874.
 SCHROEDER, Die Phönizische Sprache.
 HAUPT, Die Sumerischen Familiengesetze.
 SCHRADER, Die Keilinschriften und das Alte Testament. 1872.
 RAWLINSON, CANON, Five Great Monarchies. 3 vols.
 ————— 6th and 7th do.
 OSBURN, The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841-1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824-30. (*Text only.*)
 CHABAS, Mélanges Égyptologiques. 1862-1873.
 ————— L'Égyptologie. Tomes I and II, 1874 and 1875.
 MASPERO, Du genre épistolaire chez les Égyptiens de l'époque
 Pharaonique. 8vo. Paris, 1872.
 ————— De Carchemis oppidi Situ et Historia Antiquissimâ.
 8vo. Paris, 1872.



The Bronze Ornaments of the Palace Gates from Balawat.

[SHALMANESER II, B.C. 859-825.]

EDITED, WITH AN INTRODUCTION, BY

SAMUEL BIRCH, Esq., D.C.L., LL.D., F.S.A., &c.



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PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

TWELFTH SESSION, 1881-82.

Seventh Meeting, 6th June, 1882.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.

The President announced with great regret the decease of M. Chabas, one of the Honorary Members of the Society.

FRANÇOIS JOSEPH CHABAS, born 2nd January, 1817, was the son of Vincent Chabas, a retired Captain in the French Army, and Marie (Ferrus) his wife. He was born and educated at Briançon (Hautes Alpes), and at the age of 13 years entered business.

In 1852 several articles published in the *Revue Archéologique* by the Vicomte de Rougé and M. Prisse d'Avennes having come under the notice of Chabas, he commenced the study of hieroglyphics, and from this time up to the time of his illness his pen was never idle. To enumerate his many publications here would be out of place, but they will be found in a "Notice" by the Baron Textor de Ravisi prefixed to the volume of *Mémoires du Congrès provincial des Orientalistes Français*; St. Etienne, 1875.

M. Chabas died at his house at Versailles, on the 17th May, 1882, aged 65 years.

The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Société Royal des Antiquaires du Nord :—Mémoires, Nouvelle Série, 1880. Copenhagen. 1882. 8vo.

— Tillæg til Aarbøger for Nordisk oldkyndighed og historie. Aargang 1880, 1881. Copenhagen. 8vo.

From the Smithsonian Institute :—Annual Report of the Board of Regents, 1880. Washington. 8vo. 1881.

From the Royal Society :—The Proceedings. Vol. XXXIII, No. 219. 8vo. London. 1882.

From the Royal Geographical Society :—The Proceedings and Monthly Record of Geography. Vol. IV, Nos. 6 and 7. June and July, 1882.

From the Geological Society :—Quarterly Journal. Vol. XXXVII. Part 2. No. 150.

From the Royal Institute of British Architects :—The Proceedings, Session 1881–1882. Nos. 14, 15, 16 and 17. 1882.

From the Anthropological Institute :—The Journal. Vol. XI. No. 4. May, 1882. London. 8vo.

From the Author :—The Early History of the Mediterranean Populations, Iberians, &c. By Hyde Clarke. London. 8vo. 1882.

From the Author :—On the Origin of the Phœnician Alphabet. By G. Bertin, M.R.A.S. 4to. 1882.

Reprinted from *Orientalia Antiqua*. Vol. I. Part 1. 1882.

From the Author :—Boorg ez Ziffir. Cairo. By Professor T. Hayter Lewis.

Reprinted from the Journal of the Archæological Association, 1882.

From the Author :—Christ's Earthly Sojourn as Chronology's Normal Unit. 8vo. London. 1882.

The following were submitted for election, having been nominated on May 2 :—

Samuel Bird, 15, Sussex Place, Victoria Road, Kensington.

R. P. Greg, Buntingford, Herts.

E. H. C. Stephenson, Lympsham Manor, Weston-super-Mare.

The following were nominated for election :—

Edward Thomas Davis, 75, Caversham Road, Camden Road, N.W.
Alfred H. Paul, Tetbury.

The Rev. James Robertson, D.D., Professor of Hebrew, Glasgow
University.

Mr. H. Villiers Stuart, M.P., in exhibiting a large coloured drawing of the remarkable funeral canopy lately discovered near Thebes, produced some fragments of the original leather, the colours of which were now as bright as the day they were made. He stated that Queen Isi-em-kheb, in whose honour the canopy had been made, was a contemporary of Solomon, being mother-in-law to Shishak, who took Jerusalem after the death of the latter.

He further, as illustrations of the paper by Mr. Lund, exhibited paper squeezes of the heads of Amenhotep IV and Khuenaten, from the figures which respectively occur on the opposite sides of the façade of the tomb, which he himself had discovered and excavated at Thebes.

Mr. Villiers Stuart pointed out that there could not well be a greater contrast between the two heads, although up to the present time Egyptologists had concurred in considering that Khuenaten and Amenhotep IV were the same person, and that the names were nothing more than the earlier and later name of the same disk-worshipping Pharaoh.

He pointed out that on this tomb Amenhotep was represented as being remarkably stout and burly in physique, while on the contrary Khuenaten was a lean, effeminate looking man, just as he is represented in the well-known Tel-el-Amarna sculptures.

Mr. Villiers Stuart called attention to what he thought must be a fatal objection to Mr. Lund's identification. The Bible told us that from the time of Joseph's death and the Exodus, the children of Israel increased from seventy to 1,000,000; and it was remarked that the 430 years assigned by St. Paul to the Egyptian bondage would not be too much time to allow for that increase, and would just correspond

with the interval between Amasis, the founder of the XVIIIth dynasty, and Meneptha, in whose reign the chronicler Manetho dated the Exodus.

A Paper entitled "The Epoch of Joseph : Amenhotep IV as the Pharaoh of the Famine," was read by Mr. L. Lund.

After some introductory remarks, Mr. Lund, to fix the epoch of Joseph, took his starting point from the statements of the Bible (Gen. xlvii, vv. 14-20, 25-26), that Joseph, during the famine, caused the Egyptians to sell, as payment for grain, their treasures, their landed property, and even their persons, to the king; and that, from Joseph's days, the Egyptian king was the owner of the whole country. This is further explained by some passages from Artabanos (Euseb. "Præp. Evang.," IX, c. 23), indicating that Joseph had diminished or abolished the power of the magnates of the country, a measure that generally is identical with the establishment of an absolute kingdom. The first step must be, consequently, to investigate, from the documents of Egyptian history, whether such a social revolution ever has taken place, and if so at what time.

A comparison between the inscriptions in the tombs, from different epochs, will settle the question. From the ancient reigns, and also from the so-called XIIth, XIIIth, and XVIIIth dynasties, we have a number of inscriptions from tombs of magnates often exhibiting a feeling of content with the honours having been bestowed upon them by their sovereigns, but always maintaining a proud, independent spirit. Quite different is the spirit of documents and inscriptions dating from the so-called XIXth dynasty, when the king often is adulated and exalted in a way before unknown. The earliest documents in which this new spirit is apparent are those from the times of Amenhotep IV (Khunaten). As the magnates are still flourishing under Amenhotep III, at least during the first part of his reign, there are some reasons to suppose that the revolution must have taken place at the end of the reign of this king, or at the commencement of that of his successor. The next step then will be to investigate whether at this time some events may have happened in Egypt like those mentioned in the Bible in connection with the history of Joseph.

From the later years of the reign of Amenhotep III, we have a very important monument in the tomb of Khamhat (or Shamhat), a

magnate and high functionary. (Prisse d'Avennes: "Monuments Égyptiens," pl. 39-42. Lepsius: "Denkmäler," Abth. III, pl. 76, 77.) Here the pictures and inscriptions alike commemorate the fact that the crops were abundant, and that the collection of grain was a chief business of the royal government at that time. "The superintendent of the magazines of grain" is mentioned as being busy in speaking to the landowners to induce them to yield to the king the greatest possible quantity of grain. Further, we receive the information that the king paid for the grain with neck-chains.

A number of official reports mentioning a king Amenhotep, written on pieces of calcareous stone, and preserved in the British Museum, must also date from the later times of Amenhotep III, or the commencement of the reign of his successor (Birch: "Inscriptions in the Hieratic and Demotic Character," pl. XII, XIII, XV, and XXVIII. Chabas: "Mélanges," III^{me}. Série, Tome I, pp. 202-220). They are four in number, and in three of them grain or granaries are mentioned. In two of them is mentioned also a very high dignitary, and both the king and this dignitary are honoured by an unusual application of the determinative  to their titles, and even to verbs or pronouns relating to them, which seems to indicate that the documents date from a time immediately after the establishment of a new state of things. One of these documents (Birch, *loc. cit.*, pl. XV) states that at the day of the coronation of King Amenhotep, and at other times during the commencement of his reign, workmen broke into houses and stole loaves, cakes, grain, beer, in short victuals of all kinds, which seems to indicate that a famine raged at that time. There are reasons for believing that the king mentioned is Amenhotep IV, and the very high dignitary who is honoured by the determinative , had charge of the magazines of victuals.

In a tomb of the southern necropolis of El Amarna (No. III, by Lepsius: "Denkmäler," Abth. III, pl. 108, 109), a picture is preserved, representing King Amenhotep IV, accompanied by his queen and his daughters, standing on a balcony; a crowd of people are appearing before him, and he evidently is explaining something to his subjects. At the foot of the balcony a high functionary is seen standing in the attitude of giving his orders. Near him a clerk is busy writing something; before this clerk stands a box, in which the people are depositing neck-chains and other valuables, while they at the same time ask for a written receipt from the clerk. Behind

the clerk other people are waiting, listening to the king's words, and bringing with them leather bags and large vases, which were employed to carry grain in, as we know from other documents and pictures. Below, two other clerks are delivering to the people the bags or vases filled; and the people are seen carrying away on their shoulders the large vases and bags, which seem to be heavy. Two guardian clerks stand at the gate through which the people are passing out. This picture seems to be a copy of a bas-relief which adorned some wall of the new temple of Aten, in Thebes, built by Amenhotep IV: at least the king's figure, in the same attitude and with the same ornaments, is found again on a stone originally used in the said temple (*cf.* Prisse d'Avennes: "Monuments Égyptiens," pl. XI, 4).

In another tomb at El Amarna (No. 1, by Lepsius: "Denkmäler," Abth. III, Bl. 103-105), we meet with a picture which seems to have been executed some few years after the one mentioned. Here the king and the queen, with three daughters, are seen standing on a balcony, throwing out to the people for scrambling all kinds of ornaments and precious things. Foremost in the crowd are seen the possessor of the tomb, Aï (afterwards a king), and his wife Ti, receiving the lion's share of the treasures. Somewhat in the background, and turning his back to the scene described, stands another high dignitary, apparently of still higher rank than Aï; a number of people are urgently asking for something, or imploring him, and kissing his feet. But his attitude is not at all that of a mild benefactor: he rather appears as a diplomate, explaining that only on certain conditions will he grant their requests.

Consequently we have, from the epoch supposed to be that of Joseph, a series of monuments agreeing with the narrative of the Bible concerning him and his work in Egypt. During the latter period of the reign of Amenhotep III grain in great quantities is purchased by the king, and during the first year of the reign of Amenhotep IV the king sells grain to his subjects. Further, everywhere in these documents or pictures, a high dignitary appears, of so high a rank that he is honoured with the determinative of a god, and figured in the tombs of other prominent people. This high dignitary, so unusually honoured, has charge of the granaries, and superintends the sale of grain from the royal magazines. His name is nowhere mentioned, but he fills exactly the place which, according to the account of the Bible, Joseph occupied:

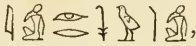
The two pictures mentioned above, from the tombs of El Amarna, perfectly illustrate the narrative of the Bible about the famine. The earlier one agrees with the description of the earlier years of the famine (Genesis, xli, 54-56): Pharaoh said to all Egypt, "Go to Joseph, and do as he says to you." And Joseph opened all the magazines and sold to the Egyptians. (Genesis xlvii, 14): Joseph collected all the valuables that existed in the country . . . for the grain which they purchased, etc.—And the latter picture illustrates the end of the famine (cf. Genesis xlvii, 18): "Nothing is left us to offer to my lord, beyond our persons and our dominions; why shall we die before thy eyes? Take us, ourselves and our dominions, in payment for bread!" Concerning this last mentioned picture, some passages from the so called Targum of Jonathan-ben-Uzziel, and from the Targum Jerushalmi (to Genesis xlix, 22), also seem to prove that it really belongs to the epoch of Joseph.

In order to fully and firmly establish the new theory, it remains to investigate whether all other documents relating on one side to the history of Amenhotep III and IV, and on the other side to Joseph, are in conformity with it. Mr. Lund announced that he had during some years collected, from different sources, a great number of documents relating to the history of Egypt and the Hebrews during the epoch from Amenhotep III to Rameses II, which are all in harmony with the above conclusions, and which he considered satisfactorily explained the seemingly contradictory statements of the Bible, Eusebius, Syncellus, Abulfaraj, etc. From want of time it was impossible to consider all the material collected; he therefore chose those documents which principally related to the reign of Amenhotep IV, or the history of the famine, such as different monuments or inscriptions, and some passages and narratives from Rabbinical writings, from Manetho, Tabari, Strabon, Diodoros, etc. In conclusion, a sketch was given of the history of Amenhotep IV as it would appear after the results obtained. The following are some of the principal points in this sketch:—

During the first part of the reign of Amenhotep III, a magnate, Amenhotep, surnamed Hui, seems to have governed both king and country, like another Richelieu. As his opponent in political as well as in religious questions, appears the queen Tii; the monotheistic movement, so peculiar in this time, seems to have originated many years before Joseph made his appearance in Egypt. The queen

must have been successful in breaking the power of Hui : in the later years of Amenhotep III nothing is heard about him, while the crown prince, who shares his mother's opinions, appears as the co-regent of his father. An attempt is made to poison "the king" (or rather the crown prince), in consequence of which a plan is conceived to abolish entirely the power of the magnates. This plan was laid by Joseph ; and the history about the dreams of the king seems to have been only a kind of veil to cover the real intention of the king's measures. It was a custom in Egypt that the magnates laid aside the superfluous grain to be given to their subjects when a failure of crops should happen : the grain was not exported, and had no other value. Now during a series of years the king purchased all the superfluous grain from the recent harvests every year ; and at the time when the crops failed, it proved that the old grain in the magazines of the magnates had been eaten up by worms, and so the king alone possessed good grain. Meanwhile a mercenary army had been formed, and garrisons placed in all the cities to defend the king's magazines. The magnates came to the king, then Amenhotep IV, to purchase grain : but now the dreams again served as a pretext to give out at one time only such small quantities of grain that the people never had enough to sow the fields ; and Joseph in that way secured to himself the fulfilment of his prediction. When the power of the magnates had been completely broken, and they had yielded all their possessions to the king, Joseph gave seed corn to the people, and the famine ended. The deposed magnates partly accepted positions in the king's service, and partly emigrated to the islands of the Mediterranean Sea, especially to Krete, where they by means of laws tried to prevent any one man coming into possession of the whole country, thus laying the first foundation stone of republican institutions. During these events the king had built at Thebes a new temple for his only god, Aten. The priests of Amen, who had been from the earliest times the principal god of Thebes, strongly opposed the new religion, and a revolt seems to have broken out. The revolt was quelled, and the rebels were condemned to work in the quarries, to cut stones for the building of a new capital, Haru instead of Thebes. The king seems to have followed the counsels of Joseph also in these matters. The new city appears to have been built in a very short time, and to have been very magnificent : the prototype of the great halls of columns erected afterwards by Seti I and Rameses II, seems to have existed here. But soon

after the erection of that city, and after the end of the famine, Amenhotep IV must have died.

Mr. Lund also offered some new opinions as to the origin of the so-called ring-money (imitation of Egyptian neck chains), concerning the interpretation of the word רַבֵּר (a union of chains, and not a union of rings or a single chain); the signification of the word  ("Greeks," one of the nine peoples, originally designated "magnates," especially those of Upper Egypt and of Syria); concerning the settlements of Joseph's kinsmen (Khaldeans, Khalu) in Goshen (Gesem, Kasion, Kazina), and their appearance on the monuments of Amenhotep IV, etc. Mr. Lund also gave a new translation of the well-known passage of the Greek Papyrus Harris, about , which he refers to Joseph. His translation was as follows: "There was a time when the people of Egypt went away to settle in foreign lands. The inhabitants of the capital had no king residing among them. Years of abundance preceded a change of the state of things. The country of Egypt was under military chiefs, commanding in the cities. One slew his second" (*i.e.*, one Egyptian slew another; civil war raged). "Afterwards, during years of want, a thoroughly extraordinary change of the" [established] "state of things" [took place]—Aalisu, a Khaldean, was the principal chief among them. The whole people were yielding to him their possessions and their persons, and lost their property," etc. To which Mr. Lund added some remarks about the variations of the name of Joseph (Jehoseph, Osarsiph, Eliseph, Raseph, in accordance with Seti = Usiri = I, or Iaubîdi = Ilubidi, or Jerubbaal = Jerubbeseth, etc.). The king Setnekht could, in his opinion, have scarcely been the father of Rameses III, but only his ancestor, and he was probably to be identified with the son-in-law and successor of Amenhotep IV.

Finally, some remarks were added about traces of these events preserved in popular tales among the Oriental nations: where King Amenhotep IV, "Khunaten" (sometimes confounded with Joseph) appears as "Shedad," Hui as "the prophet Hud," and Joseph as "Og Ben Onk" (Haq Panankh). From these tales it appears that Amenhotep IV perished in a hurricane in the desert, when on a journey to visit his new capital (Irem = Haru).

Remarks were added by Canon Beechey, Rev. A. Lowy, and Dr. Birch, in reply to a question of Mr. Villiers Stuart as to whether it was customary for the king at certain festivals to distribute collars, said that the collars were distributed for military successes.

The tablet records 400 years between the Shepherd Kings and Rameses II, but it is uncertain which Shepherd King is mentioned.

Josephus evidently was of the opinion that the time of the arrival of Joseph in Egypt was during the reign of the Shepherd Kings.

Of the fortifications built by the Jews—the so-called “Treasure Cities”—one was named after Rameses II, and built in his reign, and the Exodus took place subsequently. The successor of Rameses II would not be found at the Deir-el-Bahari, and he was not the monarch of the XVIIIth Dynasty to whose reign the Exodus has been assigned, was found.

Canon Beechey thought that the scene of the investiture with collars, was evidently a base copy of a much better sculpture. The investiture of Poeri in the reign of Seti I at was a similar sculpture, from which the one at Tel Amarna had been copied.

He also thought that the Rabbinical books were of no authority, and the conclusions drawn from them were opposed to all historical evidence. There was no reason to doubt the Greek authorities, who agree in assigning the visit of Joseph to the reign of the Shepherd King Aphophis. The introduction of the horse into Egypt, which appears both in the Bible and on the monuments, between the days of Abraham and Joseph, almost alone assigns the visit of Abraham to the reign of Amenemes III, and that of Joseph to the Shepherd Kings. He could mention many other corroborative evidences, did time permit.

Mr. Lund replied, and his remarks will be printed in a future number of the Proceedings.

A Paper by Prof. Sayce, on “The Decipherment of the Hittite Inscriptions,” was read by the Secretary:—

Mr. Sayce showed that the accurate copies of the casts from Hamath, and of the three inscriptions from Carchemish now in the British Museum, which have been taken by Mr. Rylands, have at last made it possible to make some progress in the decipherment of the Hittite texts. He pointed out the great variability in the forms of the characters allowed themselves by the Hittite engravers, even in the same inscription, a variability which renders the close resemblance between the characters found at Carchemish and those near

the figure of Niobê in Lydia all the more striking. He then went on to state that if we start with the four phonetic characters and two ideographs the values of which are given by the bilingual boss of Tarkondêmos, it is possible to decipher certain portions of the inscriptions from Hamath and Carchemish. Thus a certain group of characters is found several times at Carchemish before the ideographs of "king" and "country," and must therefore denote a royal name. The three first characters composing it are always the same, the third being that which on the bilingual boss has the value of *me*. This latter is twice followed by the head of a goat, which the bilingual boss informs us was pronounced *tarkus*. It is replaced, however, sometimes by two characters, sometimes by three, the first character in both cases being identical, and therefore representing the syllable *tar*. Mr. Sayce showed that where only one character followed it the latter had the value of *kus*; where it was followed by two characters they had respectively the values of *ku* and *es*. This *es* is attached as a suffix to nouns, and sometimes to each of a consecutive series of nouns; and since the nouns to which it is attached often come at the beginning of a sentence, it must represent the Hittite nominative, which according to the evidence of the Egyptian and Assyrian monuments, terminated in *s*. At the beginning of an inscription a proper name ending in the noninativial *es* is preceded by an ideograph, sometimes representing a head with the hand pointing to the mouth, sometimes a face with a lozenge-shaped word issuing from the mouth. The ideograph plainly means "he says," and the phonetic complement, *me*, which is often added to it, will be the suffix of the third person singular. This Mr. Sayce further verified by other evidence. He then proved that the ideograph shown by the Boghaz Keui sculptures to be the determinative of divinity is occasionally omitted before the name of a god. This is invariably the case where the god's name is part of a proper name. At Ibreez the determinative appears only once, before the picture of a serpent, and close to the face of the god sculptured on the rock. As the serpent also adorns the god's cap, it clearly symbolizes his name. Coins of Tarsos which represent the same deity show that he was the Kilikian sun-god, whose native name has been demonstrated by Ed. Meyer to have been Sandas or Sandan. Now the seal-impressions found by Layard at Kouyunjik are mostly duplicates. These have upon them the picture of a writing tablet, which must have

signified "seal," followed by the figure of the serpent, a phonetic complement, which a variant passage in one of the Carchemish texts proves was the vowel *u*, and an ideograph of unknown value. Another legend on the seal-impressions begins with the figure of the serpent, after which comes an unknown ideograph and the characters *me* and *es*. It is evident that we have in the first case a genitive—"the seal of Sandu..."—and in the second a nominative, "Sandu-xmes." Now the only foreign king, so far as we know, whose seal-impressions were likely to have been preserved in the record-chamber of Assur-bani-pal was Sanda-sarmes, king of Kilikia, who came to Nineveh in person, and whose daughter married Assur-bani-pal. The seals may have been attached to the marriage contracts. We thus have proof that the Hittite mode of writing was practised in Kilikia at least as late as the middle of the seventh century B.C. Mr. Sayce next proceeded to determine the phonetic values of some other characters; that, for instance, which resembles the Kypriote *ne* is shown by a variant passage to have the value of *e*. The grammar of the Hittite inscriptions was also discussed, so far as it could at present be made out. *Ku* is the suffix of the first person singular of the past tense, the boot (of unknown phonetic value) denoting the third person plural. *Kus* is the patronymic suffix, and in two parallel texts from Hamath the name of the father with this suffix replaces the name of the son. The plural accusative ended in *e*, like the Kappadokian *a*, but the plural was also denoted by a special ideograph, which was used alike with nouns and verbs. The copulative conjunction occurs rarely, its place being taken by adjectives, the terminations of which are the same as those of the substantives with which they agree. A suffix *er* seems to represent the dative. As the country over which the kings at Hamath are said to rule is the same as that of which the princes of Carchemish call themselves kings, it would seem that Hamath must have been conquered at one time by the Hittites of Carchemish. All three monuments now at Carchemish belong to the same monarch, but a different one is mentioned on an inscription copied on the site of Carchemish by Mr. Boscawen. When we consider how few and mutilated are the Hittite texts we possess, the fact that so much can be determined in them encourages us to hope that with the acquisition of other and more perfect inscriptions, the progress of decipherment will be rapid.

The following Communications have been received:—

ST. MARY'S VICARAGE,

CROWN STREET, SOHO, W.C.

DEAR MR. RYLANDS,

5th May, 1882.

The enclosed extract explains the fire and brazier in the mosaic of the Mausoleum of Gallia Placidia, at Ravenna, and accounts for the figure having been represented by some as St. Laurence, instead of "Our Lord," = Adônai.

Yours sincerely, ROBT. GWYNNE.

Extract from "Italy and Her Invaders;" by Thomas Hodgkins, 2 vols., Oxford, 1880, on the Mosaic in the Mausoleum of Gallia Placidia, at Ravenna.—"Christ, wielding His cross like a sword, and "with something in His form and attitude reminding one of the "description in the first chapter of the Apocalypse, stands with "an open book, probably the Gospel of St. Mark, in His hand; at "a little distance off, an open bookcase discloses the other three* "Gospels; between Him and them is a great brazier, in which "heretical books, perhaps those of the Nestorians,† are said to be "burning, the flames and the smoke being very vividly rendered." Vol. I, p. 469.

QUEENS COLLEGE, OXFORD,

May 2nd, 1882.

DEAR MR. RYLANDS,

Mr. Bertin's interesting Paper on the Assyrian Numerals, in the new volume of the Transactions of this Society, has recalled to my attention the passage in W.A.I., V, 12, 30-34, in which the Sumerian names of some of the numerals are given. This column, I am surprised to find, has not been explained; so I send you a word or two on what has always seemed to me the obvious interpretation of it. Only the Sumerian names of the numerals, it will be observed, are written phonetically in the text; their Accadian names, contained in the second column, are expressed as usual by ideographs. I still believe that the latter are substantially what I tried to make them out to be some years ago in the "Zeitschrift der deutschen Morgenländischen Gesellschaft," xxvii, 4. Dr. Haupt, I see, con-

* The names appear on the mosaic.

† Placidia issued laws against heretics; the Nestorians were condemned by the Council of Ephesus, A.D. 431.

jectures that the Accadian word for "four" was *tattaba*, or *tattama*, but W.A.I., 57, 36, where *sanabi* is stated to be the Accadian word for "forty," as well as 55, 51, 52, seems to make it clear that the real word was *sana*. Hence the value of *sa* for 𐎶, a value which I can see no reason for supposing to be of Assyrian origin, as has recently been maintained.

I should restore the passage in W.A.I., V, 12, 30-34, in the following way:—

1. (𐎶-) 𐎶𐎶	𐎶𐎶𐎶 𐎶𐎶	𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶
2. (𐎶𐎶 𐎶𐎶 𐎶𐎶) 𐎶𐎶	𐎶𐎶 𐎶𐎶 𐎶𐎶𐎶	𐎶𐎶 𐎶𐎶𐎶 𐎶-
3. (𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶) 𐎶𐎶	𐎶𐎶 𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶	𐎶𐎶 𐎶𐎶𐎶 (𐎶)
4. (𐎶- or 𐎶) 𐎶𐎶	𐎶	𐎶- 𐎶𐎶
5. 𐎶𐎶	𐎶	𐎶𐎶 𐎶𐎶
6. ... 𐎶 𐎶	𐎶	𐎶- 𐎶𐎶
7. ... 𐎶(?) 𐎶𐎶 𐎶𐎶	𐎶𐎶	𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶

Mr. Pinches is evidently wrong in supplying 𐎶𐎶𐎶 instead of 𐎶 in line 3.

Asustuv, in the first line, seems to be equivalent to "root." In W.A.I., IV, 1, 3, 42, *zir-zir* is rendered by the Assyrian *yassasu* ("the plague) will take root in." An allied word to *zir*, is *susru*, for *süsiru*, a title of Anu (W.A.I., II, 48, 30), which is explained by *assisu* (W.A.I., II, 48, 38), *asasu* being given in the preceding line as the translation of *zi-ir*. This *asasu* has, of course, no connection with *asasu*, "a nest of birds" (W.A.I., V, 32, 56.) In W.A.I., II, 45, 62, *gesdin susru*, "the *susru* vine" is mentioned between "the vine of the fox" (an allusion, perhaps, to the world-old fable of the fox and grapes), and *tillat carani*, "the tendrils of a vine," and in W.A.I., II, 7, 12, *u susru* is rendered by *yumu khasu*.

In the second line the Sumerian *tsibba* must, as elsewhere, correspond to the Accadian *dugga* (*dúga*). Since *sa* (?) means "to take away," Assyrian *nasu*, and *dúga* is "statement," the meaning of *sá(?)·dúga* ought to be "subtraction" (literally, "statement of taking away"). The Assyrian *amtasi* is the first person singular of the iphtéal of a verb, and will be the technical term for "subtracting." So the *kal imsi*, "he rejected." (Smith's "Assurbanipal," p. 16, line 56.)

In the third line, the preposition *ta*, shared alike by Sumerian and Accadian, is as usual translated by the Assyrian *istū*, "from." *Amtasi*, it will be noticed, has become so much of a technical word, as to be equivalent to a substantive, and consequently capable of being construed with a preposition.

In line 4, the Assyrian column shows what must be supplied in the Sumerian one. ΣY is *a* here, as in many other instances. Dr. Oppert long ago pointed out that Y when employed with numerals, signified "multiplied by," as in $\text{Y} \text{ < } \text{I} \times \text{X} = 10$. *Adu* has the same signification in Accadian, as we learn from W.A.I., IV, 2, 5, 55, a passage which further informs us that it was borrowed by Assyrian. The Sumerian form of the word, it would appear, was *adi*.

That *id* was "one" in Accadian, I showed as far back as 1870, when attempting to lay the foundations of Accadian grammar in the "Journal of Philology"; we now know that the numeral had the same pronunciation in Sumerian also.

Owing to the fracture of the sixth and seventh lines, it is impossible to discover what "two" and "three" were in Sumerian. The word for "three," however, ended in *mus*, which may imply a corresponding Accadian *gus*.

Yours very truly,
A. H. SAYCE.

GISSING RECTORY, DISS, NORFOLK.

DEAR SIR,

I would suggest (what has probably occurred to many others) that the Hebrew inscription at Ravenna, which Mr. Fotheringham reads אדני, should rather be read אֲדֹנָי, "our Lord."

It seems impossible to get א out of the first letter, whilst it is exactly א, except that the opening at the foot is closed up, as often happens in writing. So also no reason can be given for lengthening י into י, or rather for shortening י into י. As to the point over the א, I suggest that its object is to show that the following letter י is not a wâu of the vowel, but a final nûn. In this case it is analogous to the dot in Syriac, which is used to distinguish words according to its position, e.g., ܐܠܝܐ = "to him," ܐܠܝܐ = "to her." This dot was probably prior to the use of vowels in Syriac; and so in Hebrew it may have been used when the need of some sign of distinction was being

felt, but a vowel system was not yet worked out. Here it would show the word was מִרְנָן not מִרְנִי. The title מִרְן would be familiar from 1 Cor. xvi, 23, and Syrian influences would be felt at Rome.

Yours, truly,

JOHN SHARPE.

The following communication, on "The Phœnicians in Egypt," has been received from Professor Lieblein.

As I have recently devoted my attention to the trade and voyages of the ancient Egyptians on the Red Sea, I have pleasure in communicating something of these particular researches.

In Lepsius, "Denkm." II, 115, [c. 16], we find the following:—

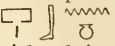


"These jackals are Bennu people who are descending." Now there is the question, who were the Bennu people? I believe, to speak shortly, that they were the Phœnicians. In Greek the word *phœnix* means a palm as well as the bird called *phœnix*, and the Phœnician. In Egyptian means *bennu*, being determined by the bird the *phœnix* (*benr*), or with the termination *r* taken away *bnau*; also **BHNE** means "palm." Now those people actually named "bennu people," as I say, the Phœnicians; so we have for the Egyptian *ben* the same three meanings, palm, *phœnix*-bird, and Phœnicians, as is the case with the Greek *φοίνιξ* and *φοιν*, and *ben* are identical, or at least may be so.*

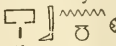
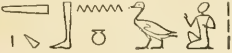
If this explanation is correct, the sentence cited gives us the extraordinarily valuable result, that the Phœnicians had descended as early as the time of the VIth Dynasty through the Hammamat

* The Arabic *ban*, "son," it cannot be, for in this case a genitive ought to be placed after it, as in Beni Hassan, Beni Suef, &c., &c. In the present case a verb stands after *bennu*.

Valley to the Nile Land ; naturally in order to bring their merchandise from the Red Sea to the Egyptians, namely, the Copts. How the Phœnicians could come here is easy to understand, but that they did so for the present cannot be closer settled ; here I will only bring forward the fact that two local names of this district appear to be a survival of this people.

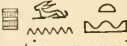
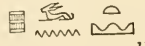
Several miles northwards from Coptos there was situated on the Nile a town of the name of  *Pa-bennu*, and in the neighbourhood of the same an island in the Nile called *Ta-benne*. Indeed Brugsch mentions* that the *Pa-bennu* is the same town as

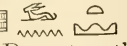
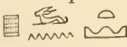
that which is described under the Ptolemies as  *Ha-bennu*, a name which means "the house of the phœnix bird."

But in the first place *Ha-bennu* is certainly not the same name as *Pa-bennu*, at the most only a paraphrase which indeed is possible, but not necessary, and can therefore give no proof ; and secondly, should the two names mean actually the same town, they need not have had the same meaning.  *Pa-bennu* means, I believe, "the town of the Phœnicians," not "the town of the phœnix bird," because no bird is employed as the determinative. But later, namely under the Ptolemies, as no one any longer remembered the Phœnicians of this district, it is possible that the name *Pa-bennu*, "the town of the Phœnicians," should become transformed to  *Ha-bennu*, "town of the phœnix bird ;" and this the more easily from the reason that the people and the bird *bennu* or "phœnix" both came from the East, and probably on account of the similarity of the name, either stood in connexion with one another, or may have been thought to do so. The same is the case with the name *Ta-benne* ; it has been translated "Phœnix Island," while its original meaning may be "the island," just as well as  "the land of the Phœnicians." Moreover, the weak and few traces of a phœnix *cultus*, which Brugsch believes he has found in these districts, are in my opinion certainly not in the way of the theory that the supposed local names take their rise from a stay of the Phœnicians in and about Coptos.

* "Dict. Geog.," p. 193.

But if I here take *bennu* as meaning Phœnicians, it appears as if I were in conflict with a theory that I wish to make of equal value, viz., that the inscriptions in Egyptian, so often name the land *Pun*, which was situated on both sides of the Straits of Bab-el-Mandeb, was originally of Phœnician or "Punic" possession, whence the Phœnicians originally came, and whence they have their name. But as the Phœnicians and the people of *Pun* are originally the same name, *bennu* and *pun* can very well and still more easily be identical.

The Egyptians write the name *pun*  a way of writing in which, as is not improbable, an Egyptian popular etymology has manifested itself: for  is the masculine article; and then  means either "to be," or with  as the determinative, "to open," "opening," "gate." If we take the last meaning, while we consider that  has fallen away from the following  half, so we obtain for  the meaning "the land of the gate," a name which answers very well for the land on both sides of the Straits of Bab-el-Mandeb. The Arabs have expressed the same thought in their name, since *Bab* in Arabic is "gate."

Probably the objection may be made to this theory, that in the times when the form  appeared for the first time—so far as I know, in the XIth Dynasty—the masculine article  was not yet in use. But as it does not occur indeed in the oldest inscriptions, it is not yet by any means proved when it at first began to appear, so that from this fact no proof can be deduced. That  may appear more wonderful which is placed at the end of the name; it cannot be radical; and the affixing of the feminine  to a word which through the prefixed article *p* is intended to be masculine, must appear illogical; but there are to be found several examples of such grammatical varieties. On this matter I will only refer to Erman, on "Plural of the Egyptians," S. 13, § 13,  *Bennu*, means I take it, the Phœnicians; it occurs, as we have seen, on a monument of the VIth Dynasty, of the same age; the supposed local names in question probably were written at the same time. The name  *pun-t*, which probably means the land (the original land) of the Phœnicians, "the Puners," comes from the same root, it occurs, as far as I know, for the first time in the XIth Dynasty, and its aberrant form has probably its basis in the Egyptian popular etymology.

DEAR SIR,

June, 1882.

A few words upon the Akkadian numerals, of which, however, very little is known, may prove to be of interest. In determining these our chief authorities are the bi-lingual lists and syllabaries, and scanty as their information is, a great deal may nevertheless be ascertained. In the following list all, with the exception of the word for "four," are quite certain:—

𐎶, 𐎶, or 𐎶	<i>gê</i> and 𐎶	<i>aš</i>	"one."
𐎶𐎶	<i>mina</i> ,		"two."
𐎶𐎶 or 𐎶𐎶𐎶	<i>peš</i> ,		"three."
𐎶𐎶 or 𐎶𐎶	<i>taš</i> ² <i>taš</i> ,		"four."
𐎶𐎶	<i>â</i>		"five."
𐎶𐎶	<i>âs</i>		"six."

From these it is also possible to arrive at other facts:—

1. The original form of "one" was, most likely, *giš* in Akkadian, and *diš* in Sumerian. The latter form is implied by the use of the sign 𐎶𐎶,* which has the value of *diš* or *daš*, to express (with the addition of the adverbial suffix 𐎶) the Assyrian word *ilteniš* (for *išteniš*),† meaning "altogether," "all at once." 𐎶 has also the value of *diš* besides that of *gê*.

2. The value of *mina* for "two" is implied in the syllabaries, where, when the writer wishes to say "twice," he writes either 𐎶 𐎶𐎶 𐎶 (2-*na-bi*) or 𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶 𐎶𐎶 *mi-in-na-bi*, in which word the *na* is the phonetic complement and lengthening, and the *bi* the adverbial termination. It is not unlikely that the numeral "twenty" was formed from *mina* by change of vowel, making the word *man*, which is one of the values of 𐎶𐎶, the sign for "twenty."‡

* See Delitzch's "Lesestücke," p. 74, rev., l. 5 and 6.

† See my remarks upon "the Consonants Š, R, and L in Assyrian," Proceedings for April 5th, 1881, p. 82.

‡ It is not unlikely that we have in these two forms *mina* and *mana*, the Akkadian money-weights *mana* and *manē* (see Transactions Soc. Bibl. Arch., Vol. VI, Part 2, p. 488, in the transcription of the tablet S. + 906, lines 1 and 5), but it is not easy to trace the derivation. A very probable explanation, however, is, that the Akkadians, besides reckoning by sixes, reckoned also by threes, as is shown by the most common arrangement of the wedges expressing the numerals, and that therefore the *mana* (60 shekels) was so called because it meant *twice* thirty shekels. It is not impossible that the *manē* is derived from the form *mina*, and if so, its value was most likely $\frac{1}{16}$ th that of the *mana*.

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sign , to which the bilingual lists give the gloss *a*. (See W.A.I., II, pl. 24, l. 30.)*

6. The *āš*, used to express the number "six," is, it will be noticed, the same as one form of the numeral for "one." This word is probably formed, however, by combining the two numerals "five," *ā*, and "one," *aš*, so that the distinction was made by pronouncing the vowel long.

"Twenty" (see above) was probably expressed by *man*. The word for thirty was, most likely, *šepu*, and forty is expressed by the word *šanabi*. (See W.A.I. II, pl. 55, line 51 and 52.†)

The word for "sixty" is *šuš* (in Sumerian *muš*). The word  , pronounced *ēššana*, probably expresses the numeral 200, (= 3 × 60 + 20), the syllable *ēš* belonging to , and *šana* to . The sexagesimal system seems to have been adhered to rigidly, so that we have, for 210, the form    (= 3 × 60 + 30), the pronunciation of which, being in accordance with the system, is given as *iššepu*, a form exactly analogous with *ēššana*, given above. It is evidently only in consequence of the coincidence of sound that the characters   were taken to express one of the Akkadian words for "king," also pronounced *iššepu*, *i* being written for *ē*.

The only other numerals known are the *nēr*, 600; the *sar*, 3,600; and the fractional numbers , *šuššana*, "one-third"; , *šanabi* (Ass. *šinipu*, fem. *šinipatu*), "two-thirds"; and , *kingusili* or *kingusila* (Ass. *parap*), "five-sixths."

From the sign , which is composed of two single strokes, and to which was evidently given the idea of collecting, was formed the sign , used in summations with the meaning of *naphariš*, "altogether," see S.^c 155 (Delitzsch's *Lesestücke*, 65), and seems to have kept its pronunciation (*tab*) in Akkadian. *Napharu* or *naphariš* could also be expressed by . From this sign , or rather its modification , with the prefix for "man" (), is formed the

* The group and gloss in the next line of this text    (to be read *ašte*) imply, if each character of the gloss refer to each of the principal characters respectively, that the unweakened value of the character  is *aš*. Its connection with *aš*, "one," will, therefore, be easily seen, and is, of course, to be traced to the fist, taken as a whole, and the five fingers, taken separately.

† Read, in each line,  instead of , and, in l. 51, *šanabaku*, instead of *sanabaku*, as the gloss.

sign for "brother,"  (literally "fereman," "companion-man"), and from the idea of a brother as a guardian came the meaning of "to protect," which was attached to both  and . As an example of a similarly contracted character may be noted the group , which is to be found (*see* W.A.I., IV, 30, No. 1, obv., l. 20) in the form .

With regard to the list quoted above by Prof. Sayce (W.A.I., V, 12, 30-36), my restoration of the first three lines would be as follows:—

Transcription.

[di] - ir	zi - ir	a - šu - uš - tum	" <i>fixture.</i> "
[ša - dub] - ba	ša - gug - ga	am - ta - ši	" <i>addition (?)</i> ."
[ša - dub - ba] - ta	ša - gug - ga - ta	iš - tu [am - ta - ši]	" <i>in addition.</i> "

Āšuštum comes, of course, from the root *āšāšu*, a common Assyrian rendering of the Akk.   *šir*, and the Sum.  *dir*, and has evidently the meaning—not of "to take root in," but "to cling to," † and *āšuštum* must here mean something like "addition." As the following word should have a meaning closely akin to *āšuštum*, the most probable meaning is "addition," not "subtraction," and refers to the list of numerals which follow. Two passages may

* It must be noted that the above forms of the numerals belong to the sexagesimal system, but there seems to have been another group, given by M. Lenormant in his book "*La Langue primitive de la Chaldée*," which is distinctly decimal. These numerals are, according to the pronunciation there given, *id*, "one;" *kaš*, "two;" *iš*, "three;" *šan*, "four;" and *bar*, "five." This word *bar* means also "half," and expresses the numeral "five" as "half ten."

† See W.A.I., IV, pl. 10, rev., l. 3, 4, where the Sum. *mundirigga*, *šusu*, *nammungab*, is translated into Assyrian by *āššušaku*, *katmaku*, *ūl anāṭal*, "I am overshadowed, I am covered, I cannot look forth." *Āšašu* and *āšaštum*, the Assyrian words for "bird's-nest," come from the root *āšāšu*, in the very common meaning of "to fix," and has, therefore, a very close connection with *āšāšu*, "to cling to."

but by repeating the word, of which the two first wedges of the first character remain. In the fourth line Mr. G. Bertin had already proposed to read   as *adu* (better *adū*,   [  ], as there is a character lost at the end of the line). Lines 6 and 7 contained originally three characters in the first (or Sumerian) column, the second of which, in line 6, according to the traces, must be  , *im*; the Sumerian word for "two," therefore probably ended *-imma*. The mutilated character, at the beginning of line 7, looks like  , *tur* or *dum*, so that the Sumerian form of the word for "three" was most likely *dummuš*.

The following is the most common system of numeration (see my "Texts," Sign-list, p. v).

Y or >	"one."	<Y or <>	"eleven."
YY or ==	"two."	<<	"twenty."
YYY, V, or >>	"three."	<<<	"thirty."
∇, ▽, or ==	"four."	<<<<	"forty."
YYY, ==, or ==>	"five."	<<<<<	"fifty."
YYY, ==, or ==>	"six."	Y	"sixty."
∇∇ or ==>	"seven."	Y>	"a hundred."
∇∇, ∇∇∇, or ==>>>	"eight."	Y> nēr	"six hundred."
∇∇ or ↘	"nine."	<Y>	"a thousand."
<	"ten."	>>> šar	"3,600."

In the above the three-system will be easily seen.

Since the writing of the above, there has arrived at the British Museum a small fragment of a syllabary from Babylon. Notwithstanding the mutilation of this text, we get from it some very important information concerning the Akkadian numerals from "ten" to "fifty." Their names, according to the list there given, are as follows :

	<i>u</i> , "ten."		<i>nin</i> , "forty."
	<i>niš</i> , "twenty."		<i>[u]innū</i> , "fifty."
	<i>êš</i> , "thirty."		

The differing forms were probably all in use at the same time.

Yours faithfully,

THEO. G. PINCHES.

BERLIN, W. HITZIGSTR, 7,

8th July, 1882.

SIR,

I beg to address to you a few lines relating to the so-called Cappadocian Cuneiform Inscription published in the "Proceedings of the Society of Biblical Archæology," XIIth Session, 1st November, 1881, page 16, and I shall be particularly obliged to you if you will be so kind as to lay them before the Society.

In reading the conjecture of Mr. Pinches, that *kutin* means *mule* (Proceedings, 1st Nov., 1881, p. 15), I could not help thinking that *kutin* is identical with the Aramaic כֻּתִּינָא or כֻּתִּינָא (Arab. كُوتِن) This word (like סוס *horse*) seems to be of non-Semitic origin, and *kutin* may be its Cappadocian (?) prototype.

Regarding the change of *d* and *t*, one might compare the Syriac name of Cappadocia ܕܟܦܕܘܟܐ *Kapadûkâ*, which the eastern Syrians pronounced *Kappaṭûkâ* (or *Kappaṭôkâ*), so as to remind one of the Assyrian form *Katpatuka*. Cf. *Œuvres grammaticales* d'Aboulfaradj dit Barhebraeus, ed. Martin I, p. 208, l. 15, 16. There is, however, no necessity for comparisons, for the word *kutin* exists in this very identical form in the Aramaeo-Pahlavi *kûtin-â* = mule, v. Pahlavi-Pazand Glossary, ed. Destur Hoshangji, p. 143.

Another observation refers to the city Isana, occurring in the Assyrian inscription published in the Proceedings, 1st Nov., 1881 p. 14, l. 31. *Isana* may be identical with *Isân* (*Tell Isân*, *Isân Kôî*), a tell and village to the right of the road from Aleppo to Biredjik, in the plain between Sâdjûr and Kerzûn, 45' north of Zembûr.

I have the honor, Sir, to be, yours very faithfully,

PROF. EDWARD SACHAU.

THE COPTIC INSCRIPTIONS OF BENI-HASSAN AND DEIR-EL-MEDÎNEH.

The tombs of Beni-Hassan, as is well known, were occupied in the Christian period of Egyptian history by monks and ecclesiastics, one of them even being turned into a school-room. Evidences of the occupation are to be seen in the numerous Coptic *graffiti* scrawled over the walls. A few of these have been published; the *Denkmäler* of Lepsius, for example, contain the alphabet which adorns the wall of the Coptic school-room. But there are many which have not hitherto been given to the world; and as they are rapidly perishing, like the more valuable paintings and hieroglyphics underneath them, I copied all that are still legible during my visit to

Beni-Hassan in December, 1881. One of my companions, Mr. Tristram Ellis, painted a number at the entrance of each tomb, so that travellers and Egyptologists will no longer have any difficulty in indicating or recognizing any tomb they wish. The numbers therefore which head my copies of the inscriptions are those of the tombs to which they severally belong. As the alphabet alluded to above has been very faithfully reproduced in the great work of Lepsius, I have not thought fit to publish it here. Otherwise the collection of inscriptions given in this Paper contains all that are still able to be read. It will be seen that they are found only in tombs 13, 15, 21, and 24. Some of those in No. 15 are published in Champollien's *Monuments de l'Égypte* (edited by Maspero), II, p. 384.

No. 13.

On the left hand door-post.

ΑΠΑΠΑΠΠΟΥΤΕ

No. 15.

(1)

ΑΠΑΠΑ(Π)ΠΟΥΤΕΠΑΤΟΥΖΑΝΕΒ
 ΑΠΑΖΕΛΕΝΑΠΑΒΕΒΑ
 ΑΝΤΡΕΒ ΠΦΙΛΕΠΠΟΥ

(2)

ΑΠΑΠΑΠΟΥΤΕΠΑΤΟΥΖΑΝΕΒ
 ΑΠΑΖΕΛΕΝΑΠΑΒΕΒΑ
 ΑΝΤΡΕΒΠΦΙΛΕΠΠΟΥ

(3)

ΕΠΙΧ ΦΙΝΕΛ
 ΖΑΠΟΣ ΟΒΗΕΓΟΝΑ
 ΤΑΚΟΒ  ΑΠΑΠΟΥΤΕ

Π

(4)

ΠΟΥΠΠΙΑΖ

ΠΟΥΤΕ . . . Τ ΤΩΖΑΠΠΙΝΕ

ΑΠΑΦΙΒΑΣΟΝΠΑΤΛΟΣ

ΑΒΡΑΖΑΝΤΕΚΑΚΤΑΚΟΒ ΠΑΠΟΥΤΗ : ΤΩΣΗΦ ΠΑΤΛΟΣ ΑΝΤΡΕΒ

ΠΑΤΛΟΣ

ΠΑΠΦΙΒΑΣΟΝ

Π ΠΕΤΡΟΣ

ΠΑΠΠΙΑΤΑΣΠΑΧΟΕΙΣ

ΠΦΙΛΕΠΠΟΣ

ΑΤΩΠΑΠΟΥΤΕΤΩΖΑΠΠΙΝΕ

ΠΕΤΡΟΥΠΟΒΤΟΛΟΥ

ΧΑΠΠΙΠΠΟΥΠΟΝΑΒ

 ΑΛΟΟΛΟΠΕΟΒ

(5)

ΠΩΣΕ (Α)ΠΑΠΑΠΟΥΤ(Ε)

ΠΑΠΑΧΥΓ

ΠΤΑΠ ΠΥΕΡΕΠΕΠΠΕΧ ΜΜ ΕΤΟΤΑΦ Ε ΠΑΡΛΑΠΟΡΟ

(6)

ΠΩΣ ΠΩΣΕ

Π ΠΧΧΠΠ

ΠΠΠΟ

(7)

ΠΩΣΕ ΠΠΑΚΤΗΠΩΣΑΨΜΕ
ΦΠΠΕΑΣ

(8)

ΠΑΠΑ ΧΥΓ ΑΠΑΣΟΡ
(Γ)ΩΣΑΠΠΠΠΣ

(10)

ΑΠΑΒΡΑΡΗ ΠΚΑΡΠΠ
ΠΔ ΠΩΤΕΠΠ: ΕΠΠΕΟΤΕ
ΠΠΠΠΠΠΠΠ

(9)

ΠΧΟΕΤΣ ΠΠΠΠΠΠ...

(11)

ΠΑΤΑ ΠΠΠΠΠ ΠΠΠΠΠΠ

(12)

ΠΠΧΟΕΤΣ ΠΔ

(13)

ΠΠΠΠ
ΠΠΠΠΠΠ

(14)

Π Π
ΑΠΑΠΑΠΠΠ
Π ΠΑΠΠΠΠ
ΑΠΑΠΠΠ ΠΠΠ
ΧΥΓ
ΠΩΣΑΠΠΠ

(15)

ΟΠΠΠΠΠ ΠΠΠΠΠΠΠ ΠΠΠΠΠ
ΕΠΠΠΠΠΠΠΠΠΠΠΠΠ
ΠΠΠΠΠΠΠΠΠΠΠΠΠ
ΠΠΠΠΠΠΠΠΠ

No. 21.

(1)

ΑΠΑΠΠΠ ΠΠΠΠ
ΠΠΠΠΠΠ

(2)

ΠΠΠΠ ΑΠΠΠΠΠ

No. 24.

(1)

ΑΓΑΓΑ ΞΕΓΓ ΤΗΡΟ
 ΑΗΞΕΞΤ ΒΑΝΟΒ ΒΩΤΕΡΩΤ :
 ΠΧΟΤΒΑ ΠΑΠΟΤΤΕΑΥ ΡΩΡΟΤΑ : ΡΑΠΠΧΟΕΤΒ
 Ο ΗΡ ΖΕΑΝΑ ΕΤΒ ΠΑΠΟΤΤΕ
 Ζ ΑΖ Τ Α ΩΠΠ Β ΕΤΒ
 ΑΒ ΠΕΠΑΤΗΟΤΤ
 ΑΙΚΟΤ (ΤΤΗΑΝΑ...ΟΤΕΠ...ΟΤ...Ο...ΟΕΤΟ

(2) probably a continuation of (1)

ΕΤ ΑΠ ΔΕ ΕΡΟΤ ΑΒΕΒΟΛ
 ΑΤΠ ΡΗ

(3)

ΠΕΠΠΑ
 ΠΕ Ω
 ΧΗΝΑ ΟΤΒ ΤΗΟΤΠΕΤΕ

(4)

ΑΒΡΑΔΑΠ ΕΠΑΠ ΑΤΤΚ

(5)

(6)
 ΠΛΧΒΤΟΒ
 ΠΑΠΑΠΟΤΤΕ

ΠΩΖ(Ε)ΑΒΡΑΔΑΠΤΒΑΚ
 (ΤΑΚΩ)ΒΤΩΒ ΕΒ
 ΠΑΡ(ΚΟ)ΤΤΩΖΑΠΠΠΟ
 ΔΑΠΤΗΑ (ΑΠΑ) ΠΤΑΒ
 ΠΤΒΑΠΑ Π Β

(7)
 Ω
 ΑΠΑΖΩΡ

(8) East Wall.

ΠΕΤΟΙ ΤΟΤΩΠΕ
 ΠΠΟΤ : ΤΕ : ΠΠΑ

ΠΑΤΠΠ ΤΕΖΗΑΠΤ
 ΨΤ ΠΕΚΗΒ

Outside the entrance to No. 17, on the left-hand door-post, I found the following Greek *graffiti*: **ΣΩΣΤΡΑΤΟΥ**
ΘΕΟΜΝΗΤΟΥ; and outside the left-hand door-jamb of No. 32 :—

ΠΑΜΜΕΝΗΣ · ΠΑΜΜΕΝΟΥ ΗΚΩ Η ΓΑΥΝΙ Κ.

Above was **ΑΙΚΛ.....ΠΛ...**

Lepsius has published all the Coptic inscriptions at Deir el-Medineh (Thebes) with the exception of the following, which I find he has omitted :—

On the roof :—

(1)	(2)	(3)	(4)
	ΑΠΑΠΕΤΡΟΒ ΑΠΑΠΠΟΥΤΕ ΑΠΑΠΑΤΕ	ΑΠΑΒΤΕΦΑΠΟΒ ΑΠΑΚ ΚΑΥΙ Ε ΑΠΑΑΒΡΑΖ (ΑΠ) ΑΠΑΠΠΙΑ 	ΠΑΤΑΟΒ

North wall :—

(1)	(2)	(3)
ΨΤΟΒΙΤΠΕΠ ΡΕΤΥ	† ΠΑΠΕΤΙ ΠΑΖ + ΑΤΟΒ ΠΕΤΡΟΒ ΑΒΡΑΖΑΠ	ΚΑΛ ΕΥ ΨΤΡΕ ΤΑΘ ΕΛΑΤ ΟΝ

South wall :—

(1)	(2)	(3)
ΠΑΠΠΟΒ ΟΠΠΗΠ	† ΡΤΕΤ ΙΕ + Ε	ΙΣΗΔΟΣ ΩΑΙΟΣΙΣ

¹ Ménas has also left his name at Medinet Abu, where Dr. Wiedemann copied the three following *graffiti*, painted in red near the right-hand chamber of the building :—

(1) ΟΑΓΙΟΒΑΠΑ	(2) ΟΥΑΓΙΟΣ	(3) ΟΥΑΓΙΟΣ
ΠΗΘΙΑΣ	ΠΕΘΙΑΣ	ΑΠΑΠΗ(ΙΑΣ)

Entrance :—

(1)	(2)	(3)
ΑΝΟΚΙΑΝΕΤΗ ⲙⲁⲛⲁ	(ⲧⲱ)ⲗⲁⲛⲛⲏⲃ	ΕΓΩΕΙΜΙΠΑΤΑΛΟΣ ⲉⲗⲉⲉⲧⲱⲡⲣⲉⲥⲃⲧ(τερος)

(4)
 ΠΡΩΓΕΓΓΗΤΑΛΟΣ
 ⲉⲗⲉⲉⲧⲱⲡⲣⲉⲥⲃⲧ
 ⲧⲣⲟⲥⲟⲉⲟⲩⲥⲁⲩⲧ
 ⲡⲣⲉⲥⲃⲧⲛⲉⲁⲩⲧⲁ
 ⲥⲃⲃⲧⲁⲩⲧⲁ
 ⲁⲩⲱⲃⲟⲥⲙⲁⲣⲧⲣⲟⲥ

Compare with
 this the
 Inscription
 on the
 east wall :—

† ΑΝΟΚΙΑΤΑΛΟΣΠΡΕΒΒΗΤ
 ΕΡΟΒΠΥΡΙΒΗ ΑΠΑ
 ΟΣΟΦΤΑΛΟΣΠΡΕΒΒΗ
 ΤΕΡΟΣ . Π . ΦΑΓΙΟΒΑΠΑ
 ⲉⲛⲁⲣⲧⲣⲟⲥ

East Wall :—

(1)
 ⲡⲉⲩⲣⲉ
 ⲛⲣⲁⲧⲣⲟⲥ

(2)
 ⲡⲉⲕⲁⲩⲧ

(3)
 ⲡⲣⲟⲧⲣⲟⲥ

(4)
 ⲃⲉⲛⲉⲱⲩⲧ
 ⲟⲩⲣⲟⲟⲩⲟⲥ

(5)
 ⲁⲩⲧⲟⲛ
 ⲡⲉⲧⲧⲛⲉ

The numerous Coptic *graffiti* at Deir el-Bahâri well deserve to be copied. Among the Greek ones, I found two which are curious :—

ΑΜΜΩΝΙΟΣ ΝΕΙΔΕΩΣ ΚΡΟΚΟΔΕΙΛΟΣ, and
 ΝΙΚΑΓΙΟΣ ΚΙΔΙΩΡΟΥ.

I may add here some Coptic inscriptions I copied on the roof of the temple of Hadrian, three or four miles to the south of Medinet-Abu, now known among the natives as the Deir el-Giblî. The temple is in a good state of preservation, though turned into a cow-house.

(1)	(2)	(3)	(4)
ⲓⲉⲛⲁⲣⲁⲗⲁⲛ	ⲡⲛⲟⲩⲩⲧⲉ	ⲡⲙⲉⲃⲩⲣ	ⲡⲛⲱⲭⲟⲛ ⲡⲩⲩⲟⲩⲟⲩ

By way of conclusion I append some of the Greek *graffiti* I obtained in the tombs of Tel el-Amarna. Among them was a Phœnician inscription, unfortunately so much obliterated by later Greek scrawls that the only characters legible were **Υ Ψ &**. The Greek *graffiti* are as follows :—

(1) ΑΝΔΡΟΝΙΚΟΣ	(2) ΜΗΗΣΙΘΕΟΣ ΔΩΡΙΕΩΣ	(3) ΝΙΚΟΜΑΧΟΣ CANNOC
(4) CΑΡΑΠΙΩΝ ΝΙΚΙΟ(Υ)	(5) ΜΗΝΟΦΙΛΟΣ ΕΛΘΩΝ	(6) ΕΡΜΑΙΟΣ
(7) ΜΑΛΕΑ	(8) ΚΑΒΑΔΟΚΟΣ	(9) ΑΡΙΣΤΩΝΥΜΟΣ
(10) ΗΡΑΚΛΙΑΣ	(11) ΦΙΛΟΝΙΚΟΣ	(12) ΙΛΙΟΣΙC
(13) ΑΡC|ΗC|C	(14) ΦΙΛΟΜΑΚΙΓ ΠΑΤΡΟΣ	

The following is a mixture of Greek and Karian, though the Karian must be of much earlier date than the Greek :—

ΠΟΝΑΜΑΙΟΣ CΟΑΤΟΣ
ΦΙΛΙΝΟΥ ΥΛΡΑΡΨΥΠΧΟΨΙΚΜΔΑΙCΧΡΙΩΝΛΟΥΘΡΑΙΞ

According to Hêrodotos (III, 26) the greater Oasis of El Khargeh, from six to seven and a half days' distance from Thebes, was occupied by Samians of the Aiskhriônian tribe.

A. H. SAYCE.

The following communication on Lake Moeris, and his recent explorations in the Desert near the Fayoum, by F. Cope Whitehouse, has been received :—

A critical examination of the texts of the ancient authors shows a substantial accord in the situation, magnitude, depth, circumference, and purpose of the Lake of Moeris. There are insuperable difficulties in plotting such a lake on even the latest maps of Egypt (1).* The basin of the Fayoum (2) is too small, and its general direction is from east to west (3). The levels estimated by Jomard (4) (1800), measured (?) by M. Linant de Bellefonds (5) (1842), and approved by Dr. Lepsius (6) (1859), put its maximum depth at seventy-five feet below Beni-suef (7). The conditions imposed being therefore regarded in their entirety as out of the question (8), five theories have been successively advanced. Paul Lucas (1707) identified Moeris with the Birket-el-Qerun, as the Lacus Meridis of the maps of Cl. Ptolemy (9). D'Anville (1765) abandoning the alleged depth of 250–300 feet, invented the Bathen, corresponding to the Cocheiche and other basins formed during high Nile (10). Jomard (1800) reverted to the Birket-el-Qerun, which he thought had been 18 or 20 feet deeper and thus (!) filled the lowest plateau. Sir G. Wilkinson believed that Herodotus confounded the Lake Moeris with the canal which conducted the water from the Nile to the Birket-el-Qerun.



In 1842 Linant Bey showed, on what were believed to be indisputable grounds, that the lake was situated on the easternmost and highest part of the Oasis, from which it was separated by a dyke 22–30 feet high. In accordance with his researches, it was of much smaller extent than was formerly supposed, and the 450 miles which Herodotus, Diodorus, and Mutianus mention as its circumference, might, with tolerable accuracy, be reduced to one-tenth, or 45 miles. Its bed measured about 63 square miles in area. It was emptied

* These numbers refer to the notes at the end of the Paper.

annually, and has long since dried up. Its site can now scarcely be discovered by the aid of a strong imagination (13).

This opinion was universally adopted by the scientific and literary world (14), and is still the only current view (15).

In 1872-73 Linant Bey, however, had admitted a fatal error (16) in his alleged measurements (17). In 1880 a section was published by Dr. Schweinfurth (who however still accepted the theory of M. Linant), based upon a careful survey in 1871 by the present Director-General of Public Works. The bottom of the Fayoum is there determined to be about 170 feet below the Mediterranean (19), and 260 feet below high Nile at El-Lahun.

Although not aware of the existence of this survey of Rousseau Bey, I was satisfied in November, 1881, that the difficulty lay in the errors of the modern maps. Otherwise it constituted a grave infraction upon the veracity of persons of unimpeachable integrity, imputing to them a reckless disregard of truth, and a gross ignorance of the most obvious facts, prolonged and repeated during the entire thousand years of ancient Greco-Roman history (20).

It was a question where a lack of intimate acquaintance with the locality would easily conduce to error. No amount of erudition or exercise of the scientific imagination, could dispense with the correct physical conditions of the place. But, on the other hand, it was indispensable to analyse the various accounts and combine them into a simple statement of coherent facts, so that the search might be prosecuted with a lucid idea of the object sought.

Far from conceding that "Herodotus did not judge from his own observation, but mistook the facts detailed to him by his Egyptian informants" (21); that Diodorus, after the lapse of four centuries, borrowed (22) these palpable blunders of an Ionian, to incorporate into a new account for the enlightened society of Sicily; that Strabo, well fitted by birth and education to estimate justly human achievements, and too accurate to care to repeat figures which he could not verify, had been betrayed without any apparent motive into the use of the most exaggerated terms (23); that Pliny, who agreed in thinking the Labyrinth still "the most stupendous result of human labour," and unsurpassed by the Golden Palace of Nero, should have described a plain (campus) as "a great fosse," and a varying depth not exceeding 25 feet, as 250 feet, or cited the Prefect of Rome as

his authority that a dyke of 20 miles and a road of 35 miles, which they both may have traversed scores of times on their visits to baths, temples, and garrisons, were 450 miles long; that Ptolemy, a geographer, making maps and selling them in Alexandria, would dare to furnish Hadrian with an idle tale with which hungry Greeklings had gratified their love of the marvellous six hundred years previously; that Ælius Aristides, who had examined the Nile Valley "four times," "neglecting nothing" (25), "buying all the books," or "making his own measurements," should have, in deference to the 'rather clever fellow' whom he was opposing, put the Lake of Moeris, though a very commonplace pool, before Marcotis and Serbonis; or that as late as the sixth century, Crocodilopolis should be said to be in the Lake of Moeris, because a Byzantine lexicographer believed that the Court of Justinian was more familiar with the "Euterpe" than with hundreds of later works or the contemporary geography of Egypt: the consensus of evidence seemed to be of the strongest conceivable character.

It was therefore a foregone conclusion that between the parallels of Gizeh and Behnesa, the Nile and the 'Bahr Bela-Ma,' there had been an artificial lake, ranked by competent observers as the greatest work of man, and as an incredible result of patient labour, engineering skill, and political sagacity. The weight of evidence was in its favour. The 'onus' lay on the complainants to justify their charges of plagiarism, falsehood, and blind credulity. I revisited Egypt, however, without any bias as to detail. It was necessary not only to examine the unexplored desert, but to determine the age of the remains in the Fayoum, pottery, mummies, temples, and pyramids, and so dispose of the otherwise fatal objection that this basin had been, even in the time of 'Menes,' the fertile Crocodilopolite nome.

Between lat. $30^{\circ} 12'$, and the Wadi Reian, no important place was left unvisited. From Abu-Roash and Gizeh across the Kom El-Kashab into the Wadi Fadhi, and east to Sakkara; from Medinet to Tamieh and Kafr Amār; from el-Adwēh across el-Bats and el-Wardan, northward under and on the eastern hills to the extreme edge of the hollow (8 m. N. of Tamieh), westward to Junker's track; on the lake, its islands, and at Dimēh; Bihamu, Ssenūres, and Abuksa; along the old dyke from Sirbe to Schedmūeh; from Atsa, el-Minyah and Abu-Gandir to Nezeleh, Qasr Qerūn, and the Heram; from Medinet to Gharaq, the Wadi Reian, Tutun, Ambēsche (the

monastery), and Hauwareh; from Medinet to el-Lahūn and Hauwareh el-Kēbir; although often alone with Arab servants or native gentlemen, I was also aided by experienced engineers, Austrian, English, and Prussian.

These researches, supported by a vast body of proof, and the opinions of countless experts consulted by me, eminent for Greek, Hebrew, Coptic, and Arabic erudition, in art and literature, in local tradition, history, and personal acquaintance with the country, enable me to state with reasonable confidence certain conclusions (26).

The accounts of the ancient authors, Herodotus, Diodorus Siculus, Strabo, Mutianus, and Pliny, confirmed by Ælius Aristides, Stephen of Byzantium, and the text and maps of Ptolemy, conclusively prove that, from a very early period in Egyptian history, down to a time antecedent to the Arab invasion, a large volume of Nile water was diverted into a part of the Libyan desert north of $29^{\circ} 42'$ N. lat. and west of $31^{\circ} 5'$ E. long., and the lake thus formed was commonly known as the Lake of Moeris.

From before the fifth century B.C. (27), to the early part of the first century A.D., the surface of this lake rose, periodically, during the inundation, above the level of low Nile at Beni-suef, and according to the unimpeached testimony of Herodotus, Diodorus, and Pliny, was about 50 fathoms deep in its deepest parts.

The physical conditions of this part of Egypt would permit the formation of a reservoir of Nile water, fulfilling all the requirements in depth of the several accounts of the ancient historians.

The exploration of the desert to the south of Qasr-Qerun; with the theodolite observations and photographs by Mr. Petrie in a subsequent expedition to the W.S.W. of Gharaq, confirmed by the general statements of Calliaud (28), Belzoni (29), and Mason Bey, and the aneroid observations of Dr. Ascherson (30), in 1876, show that there is also a depression in the desert between the Wady Moïeh and the Fayoum of not less than 200 feet below Beni-suef.

It is to this feature that attention is especially directed. It is not correct that the Birket-el-Qerun had always been believed to be identical with Lake Moeris. The Ptolemaic maps place it to the south of Bacchis (Kom Uashim (?)) and the latitude of Arsinoë. The text gives a difference of 20 seconds of latitude between the town which must have been in the Fayoum and "circa Meridis paludem" (31).

The entire depression in its several basins (32) bears visible traces of having been filled with water, not in a geological era, but within a relatively recent if not historical period (33). Nearly horizontal strata of limestone (34) have been removed by erosion (35). The only agent available would be that branch of the Nile which is now known as the Bahr-Jusuf (36).

A lake so formed would, probably, have a shore of between 300 and 500 miles long, with steep promontories and sandy bays, resembling the sea coast. It would contain islands from 150 to 250 feet high (37), hold a large part of the surplus water of the inundation, be blue in colour and prolific in fish, discharge at low Nile into the valley by the canal by which it was fed; lose a considerable volume by percolation, especially to the north and west (38), as well as by evaporation, which would aid in the cultivation of the hills to the east.

The general direction of such a lake would be from north to south.

In the absence of any proof that this part of Egypt was inhabited prior to the Ptolemies, or that any Greco-Roman remains earlier than A.D. 40 have been found below the first plateau (39), there is no sufficient reason to doubt that at an early period, and prior to the first Olympiad, this depression was filled with water, and has ever since continued to receive an annual supply. It is probable that in the time of Herodotus the lake extended to the foot of the Sedment range; in the time of Strabo had been excluded from parts of the upper plateau by dykes (40), which can still be traced; in the time of Pliny never rose as high as the Nile valley; in the time of Cl. Ptolemy had been chiefly restricted to the southern basin (41); at the time of the Arab conquest, received little more than sufficient for the purposes of irrigation (42). It would seem that in the fifteenth century (43) the southern or Gharaq basin received more water than the northern or Fayoum; but their relative importance has steadily changed, and the Birket-el-Qerun increases annually, while the Gharaq basin has virtually disappeared.

NOTES.

(1). "The map of the French Expedition (1809) displaced all previous maps of Egypt. It marks unbroken desert where your recent explorations show the deep hollow of the Wady Moieh." (C. H. Coote, Brit. Mus., July 20th.) *See, e.g.,* Cours du Nil, Fevrier, 1738, Norden.

(2). Fayoum, not Fayūm, is the official equivalent of الفيوم. Elsewhere I have followed the spelling of Dr. Schweinfurth.

(3). Denkmäler aus Ägypten. 1859. Abth. I, Bl. 3. Zeitschrift der Ges. f. Erdkunde. 1880. Bd. XV, Taf. 1. Petermann's Geogr. Mitth. 1880. Taf. 9. But *see* Phys. Geogr. d. Lib. Wüste, Bd. II. Jordan, Cassel, 1876.

(4). Description de l'Égypte. E. M. VI, p. 175, ed. 1830.

(5). (Measured (?) by M. L. de B., 1842.) "Lorsque j'ai fait faire des nivellements." Mémoires sur les Principaux Travaux, &c. Paris, 1872-73, p. 64. But *see* "Es scheint, dass Linant-Pascha im Jahre 1840, u.s.w." "In dem Werke über die ägyptischen Bauten thut Linant-Pascha nur an einer einzigen Stelle eines solchen Nivellements Erwähnung, und zwar ganz nebensächlich in einem Zwischensatze." G. Schweinfurth, Bemerk. Zeit. d. G. f. E., B. XV, H. 2, p. 152, 1880.

(6). Denkmäler, A. I., B. 3.

(7). "The present level is nearly the same with that of the Mediterranean."—Smith's Dict., s. v. Moeris.

(8). "Ce qu' Hérodote et Diodore de Sicile ont écrit sur l'étendue du lac Mœris est hors de vraisemblance, si par la manière de l'entendre, on ne la rend vraisemblable." M. Jomard, Mémoires, etc., VI, p. 149, ed. 1830.

(9). Voyage, &c., Paris, 1712, 12mo.; and Voyage en 1714, Paris, 1731, 12mo.

(10). "Égypte," par le S^r d'Anville (map), 1765.

(11). Description de l'Égypte, Vol. VI, p. 166.

(12). Ancient Egyptians, II, p. 124; Egypt and Thebes, p. 358, but *see* Rawlinson's Her., II, 148, Vol. II, p. 226, note.

(13). Mémoire sur le lac Moeris, présenté et lu à la société Égyptienne, le 3 Juillet, 1842. Alexandrie, 1843. "En plaçant le lac ou réservoir de Moeris dans la partie la plus élevée du Fayoum . . . il était possible d'avoir une hauteur d'eau de plus de sept mètres audessous du point du deversoir à Awarat el-Macta. Le mémoire,

publié par Mr. Linant sur le lac Moeris, *donne tous les éclaircissements désirables* sur ce point de l'histoire ancienne de l'Égypte." Carte Hydrographique de la moyenne Égypte, par M. Linant de Bellefonds. Paris, 1854, D.

(14). Rawlinson's Egypt, II, 161, 162, n., 1880. See *passim*, e.g., the works of Brugsch, Bunsen, Lepsius, Mariette, Maspero, and Wilkinson, and recent maps. But see letter of Dr. Birch, *infra*.

(15). See e.g., Encyc. Brit., 'Egypt,' 1877; Baedeker's Egypt (Germ. Ed., 1877), Eng. Ed., 1878, pp. 451, 452; Isambert, Orient, etc., p. 447, 1878; Murray's Egypt, II, p. 380, 1880. "The Land of Khemmi," 1882. [But "I must write a line to congratulate you on the success of your labours. I, of course, took Linant's theory for granted."—L. Oliphant, Const., July 11th, 1882.]

(16). Mémoires sur les Principaux Travaux d'utilité publique, exécutés en Égypte, accompagné d'un Atlas par Linant de Bellefonds Bey, Paris, 1872-73. Arthus Bertrand Editeur, 21, Rue Hautefeuille. Compare "Hérodote donne au lac une profondeur de cinquante orgies, ce qui fait environ quatre-vingt douze mètres. Or, depuis les terrains de la province de Benisouef, à l'entrée du Fayoum, jusqu'au fond du lac Keïroun, il n'y a que vingt-sept mètres [27^m. = 88 feet] de différence de niveau. *Le lac ne pouvant DONC pas avoir cette profondeur* indiquée par Hérodote, c'est probablement une erreur ou de mesure, ou d'unité de mesure, ou enfin de renseignements," 1842, p. 12; but "Depuis la gorge d'Illaoun et le seuil du Bahr Joussef à Awarat el-Macta, jusqu'à la surface du lac, comme l'a vu M. Jomard, et comme cela existait encore *lorsque j'ai fait faire des nivellements (!)*, il y a 61^m. 80 [200 feet]. En mettant la profondeur des eaux du lac à 20^m. 20, CE SERAIT la mesure qu' Hérodote donne au lac." 1872-73, p. 64.

(17). The Atlas is well-known, but its results appeared for the first time in English, in the Land of Khemni. The mémoire is never quoted. It was unknown to, e.g., Encyc. Brit. (R.S.P.), 1875, and M. Isambert, Itinéraire, v. 2, 1878, where the mémoire of 1843 is expressly cited as the latest exponent of M. Linant's view. It reflects no discredit upon these authors. The title of the work is misleading. The article has this prefatory note (p. 47): "En 1843, la Société Égyptienne du Caire publia mon mémoire sur le lac Moeris, à 400 exemplaires, qui furent adressés, en grande partie aux Sociétés savantes européennes. Le mémoire que je donne ici, est donc *une seconde*

édition, revue et augmentée, du premier." There is no hint of mistake or list of errors. The corrections are furtive, and scarcely, as the result has shown, received the publicity which might otherwise have attached to the words of "une des gloires de l'Egypte moderne." It might have further modified the opinion that "to M. Linant certainly is due the merit of having settled a controversy of no little importance, and the Egyptian Society of Cairo *deserves our thanks* for the publication of his most interesting memoir." (Encyc. Brit., 1855 and 1877.)

(18). Bemerkungen zu der neuen Karte des Fayūm, von G. Schweinfurth. Zeit. der Ges. f. Erdk. Berlin, 1880. B. XV., p. 152, and map. Taf. 1. The text is worthy of the author. The map is excellent for the cultivated land and the Nile Valley. A tracing of the original map $\frac{1}{40000}$ I owe, with other favours, to the courtesy of Rousseau Bey. The profile (No. 2), with some facts added from the original field books of M. Julliot, now engineer of the Daireh Saniéh, is appended. He confirmed its accuracy. But a new map with a triangulation by a most able engineer, M. Stadler, under the skilful direction of Mason Bey, chief of the Cadastre in the Fayoum, an experienced African explorer, was (May, 1882) in course of preparation.

(19). The height of Wasta above the Mediterranean is probably correct to within a few feet. But *see* "Cairo, Hochwasser Nils, 18^m. über dem Meer. Niederwasser, 11^m. über d. M." Phys. Geog. u. Meteor, der Lib. Wüste, bearbeitet von Dr. W. Jordan, Cassel, 1876, B. 2, pp. 178-204.

(20). Herodotus II, 4; 69, 148, 149, 150. Diodorus Siculus I, 51, 52. Strabo I, XVII, §§ 3, 4, 36, 37, 38, 39, 41. Claud. Ptolem. Geog. lib. IV, text. Ed. Wilberg, 1838, p. 279 and maps. Plin. H. N. V. 9, XXXVI, 12. Æl. Aristides, Oxon. 1722, tome II, pp. 350, 351. Steph. Bpz. s. v. Κροκοδείλων πόλις. For Pomponius Mela *see* Tzschuckius, p. 340, for reasons why the passage ought not to be cited as an authority (*e.g.* by Linant, Ebers, etc., *passim*).

(21). Wilkinson, Anc. Egypt, II, 124.

(22). If such a charge does not refute itself, *see* variations and new matter added, *inter alia*, the cost of opening the sluices, £11,500.

(23). "Strabon ne donne aucune mesure au lac de Moeris ; il se borne à comparer son étendue à cella d'une mer. Quoique cette expression soit *exagérée*, etc." M. Jomard, Des. VI, 169.

(24). The Admiral of Vespasian would not have quoted the all-powerful commander-in-chief of the expedition against Vitellius, statesman, orator, and historian, to expose an error; much less to commit a similar blunder. The explanation lies in the word "fuit."

(25). Ἐπειδὴ γὰρ καὶ μέχρι τῆς Ἀιθιοπικῆς χώρας προελθὼν, καὶ αὐτὴν διερευνησάμενος Αἴγυπτον τετράκις τοσούμπαν καὶ παρὲς οὐδέν ἀνεξέταστον, οὐ Πυρραμίδας, οὐ λαβύρινθον, οὐχ ἱερὸν, οὐ διώρυχας, ἀλλ' ὡν μὲν ἐν ταῖς βίβλοις τὰ μέτρα ὑπήρχεν ἐκείθεν πορισάμενος, ὡν δὲ μὴ ἐξ ἐτοίμου λαβεῖν ἦν ἐκμετρήσας, αὐτὸς μετὰ τῶν παρ' ἐκάστοις ἱερέων καὶ προφῆτων. κ.τ.λ. p. 331. Oratio Ægyptiaca. Refutatis aliorum opinionibus de causis Nili crescentis.

(26). My indebtedness to these gentlemen will be duly acknowledged elsewhere. Dr. Schweinfurth encouraged my researches personally and by letter. "Les recherches sur le Fayoum et les anciennes conditions de ses eaux que vous poursuivez depuis longtemps avec tant de zèle, etc. Comme vous avez constaté dans le sud-ouest hors de cette province une depression pouvant servir comme deversoir pour le trop plein du Bahr-el-Youssouf, il s'agit *avant tout* d'y faire executer un nivellement." (Cairo, March 8th, 1882.) Lieut.-Gen. Stone Pacha, Chief of the Staff, and President of the Geog. Society of Cairo, warmly seconded my proposal to make a thorough and exhaustive examination of the whole area. Political considerations prevented this. My subsequent expeditions, however, with the assistance of Mr. Tristram Ellis and Mr. Flinders Petrie were sufficiently accurate for the solution of the principal question. "I know nothing from the studies which I have made which would work against your theory of there having existed in and near the Fayoum such a great basin of Nile water as that described by the ancients. Indeed, I am so far of the contrary opinion, that I shall urge the levelling of the country in the vicinity," etc. Lieut.-Gen. Stone Pacha, May 19th, 1882. Wilson Bey, of the Daira Sanieh, and Rousseau Bey, of the 'Public Works,' for their respective departments, were also anxious to "turn such investigations as mine (yours) to practical account, when the country enters upon a new future under more favourable conditions."

(27). A waste weir was sufficient for the reclamation of the Delta, the lowering of dykes, and the protection of the villages against the inundation. It was, probably, an after thought to extend the indirect benefits from percolation and evaporation, to the direct supply of

pure water to the Nile valley by canal. It seems that the precise date when the encroachments upon the supply and extension of cultivation in the northern basin localised its benefits may be fixed between the visits of Mutianus and Pliny.

(28). Voyage à Meroe (1819). Paris, 1826.

(29). Operations, etc. London, 1820. 4to.

(30). Phys. Geog. Jordan, p. 216. G. Schweinfurth, z.f.e. p. 160.

(31). This requires more elaborate argument and illustration, but see the folios *passim*, and of Rome, 1478, Venice, 1511, and the text, Wilberg, 1830, pp. 279, 282.

(32). ἐν τοῖς πλείστοις μέρεσιν. Diodorus.

(33.) See Section of Dr. Schweinfurth, and M. Linant, *passim*, and p. 67 (1873).

(34.) The 'terrains d'alluvion' of M. Linant do not exist.

(35.) The word "depression" is not therefore correct. It was 'eroded,' as the ancient authors uniformly stated. The *χοῦς* of Herodotus is the equivalent of "un terrain si peu compacte et aussi friable." L. de B. (1873) p. 55.

(36). Bahr Jusuf, query, cf. יוֹסֵף 'a noun from the fut. Kal of יָסַף, increaser, Gen. xxx, 24, where the name is interpreted; and see D'Herbelot, s.v. for the traditions. See also the Arab historians. The "canal of Joseph" is a misconception.

(37). The depth of the lake was 'shown by two pyramids, somewhere near the middle, in its deepest part.' The stones at Bihamu are not pyramids, they stand near the limit of the highest plateau, and may be of Roman date.

M. Jomard objected that a structure would not prove the depth of an excavation. He failed to consider with the statement of Herodotus the succinct account of Diodorus: Ὁ δ' οὖν βασιλεὺς ὀρύττων ταύτην κατέλιπεν ἐν μέσῃ τόπον, ἐν ᾧ τάφον ὠκοδόμησε καὶ δύο πυραμίδας, τὴν μὲν ἑαυτοῦ τὴν δὲ τῆς γυναικὸς, σταδίαίᾳ τὸ ὕψος. As in the Latomia del Paradiso of Syracuse, in modern French quarries, and in the East, a squared mass of the natural rock was left standing to show the amount of stone removed. As the hollow in this case was filled with water, two piles above marked the depth beneath. *Against* (ἐπί) them were colossal statues. On the well-established Eastern principle, 'si monumentum quæris,' the king *also* constructed a tomb in the noble challenge which he offered to all potentates from

Sesostris to Hadrian. Νομίζων διὰ τούτων τῶν ἔργων ἀθάνατον ἑαυτῷ καταλείψειν τὴν ἐπ' ἀγαθῇ μνήμην. The pyramids of the lower Nile all stood at, in or near 'Meri,' as those of the upper Nile, near the 'island' of Meroë.

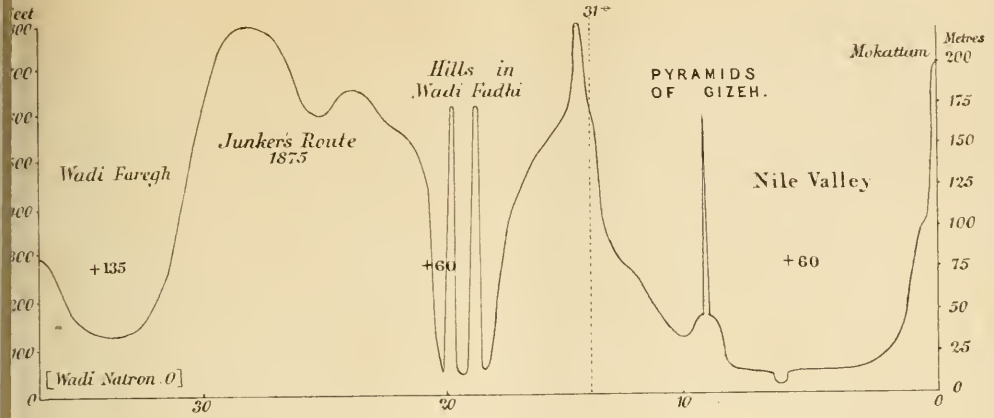
The 'Heram' (Pyramid) Merouet-el-Berl is not the site of this tomb and these pyramids. But the name may have been transferred to this bold and conspicuous hill, isolated and streaked with glittering gypsum, from some one of the adjacent mounds to the east. I had left camp and my European servant two hours before day-break. I reached it at 1 P.M. The shêkh of Nezleh, who lent me his own horse, and his amiable and accomplished son Mustapha Ali who accompanied me to the edge of the desert, exacted a promise that I would not sleep in those dangerous hills. My six Arab hunters had joined me but two days previously, and we could not carry food or water for camel or horse. Under these circumstances my *reconnaissance* should not deter others from renewing the search for remains which appear to have still existed in the time of Pliny. Calliaud passed to the south. No European had ever before set foot in that weird and fantastic spot, or climbed those hills so strangely worn by water and blown sand. (So Dr. Schweinfurth, March 8th, 1882.)

(38). By the Wadhi Fadhi, discovered and explored March 21st and 22nd, 1882. "A new and most important contribution to the cartography of Egypt." C. H. Coote, Brit. Mus., July 20th, 1882. See valuable article on Die Behar bela-ma Frage, Rohlf's. Drei Monate in der Lib. Wüste, p. 14, Cassel, 1875. The word Fadhi (cf. فَضَّ) seems to retain this use.

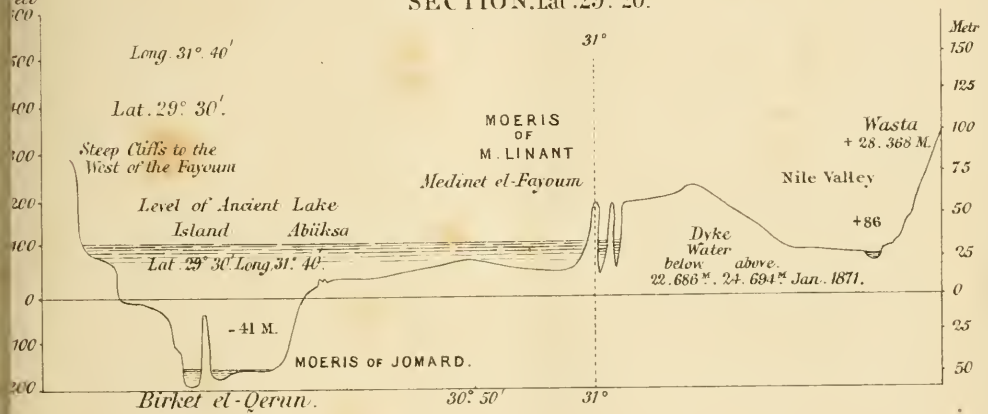
(39). M. Maspero told me that he had never seen anything from the Fayoum earlier than Strabo; confirmed by, *inter alios*, M. Vasalli, Rogers Bey, and M. Guimet. The 'obelisk' at Begig is not *in situ*. The remains at Hauwarah, depicted with such absurd exaggeration in the Denkmäler aus Egypten, are only mud-brick walls of at least a late Roman period. M. Vasalli believed that the Labyrinth had been destroyed. (Boulak, January, 1882.) M. Mariette declared it still concealed under the mud of the Fayoum. I think it should be looked for elsewhere. But in any event, while the Nile Valley contains its millions of records, and the western end of the Bahr Jusuf is marked by granite blocks and traces of an important temple of the time of Amenemhat III, these monuments of antiquity stop on the



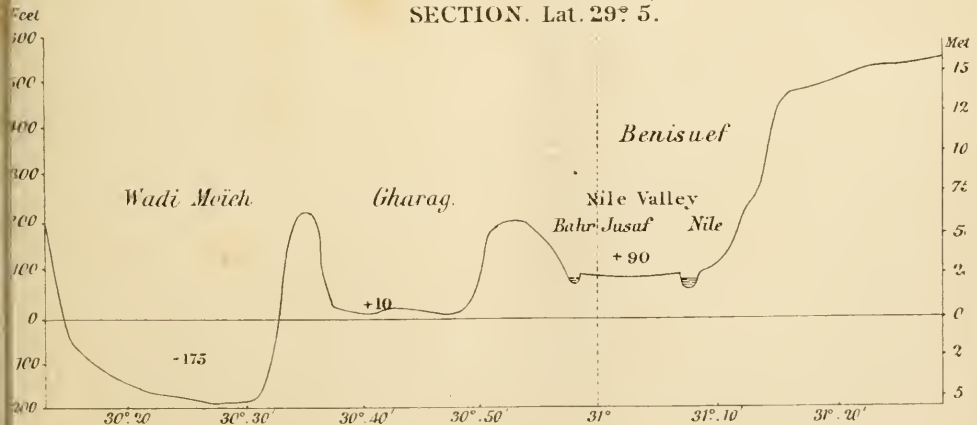
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SECTION. Lat. $29^{\circ} 20'$



SECTION. Lat. $29^{\circ} 5'$



threshold of what has been for the last 1,800 years the fairest province of Egypt.

DEAR MR. WHITEHOUSE,

I need not say how much pleasure your theory of the Lake Moeris has given me, as I never accepted the result of the observations of M. Linant de Bellefonds, and have confined myself to the statements of the classical writers. Future explorations, it appeared to me, could alone settle the question. Your recent investigations of the Wady Fadhi and of the deep basin of the Wady Reian seem to offer the solution of this difficult problem.

It had long struck me that the mass of antiquities obtained by Mr. Greville Chester from the Fayoum were of the Ptolemaic and Roman period of the occupation of Egypt, and consequently that the Fayoum was not inhabited at an earlier period. Even the discovery of a few more ancient monuments at its edge would not militate against that.

Believe me, yours very truly,

S. B. BIRCH.

Brit. Mus., *July 26th*, 1882.

(40). This dyke is also the traditional wall of Makrizi.

(41). *Cf.* the maps and text.

(42). The most diligent search and active local enquiry failed to find any Arab tradition, that the Fayoum had been filled with water. The Khedive and his suite, Mahmoud Pasha, Salama Bey, the Mudirs of the Fayoum, the Copt clergy, the learned Shêkh at the Kutubkhāneh, *inter multos alios*, had never heard or read of it. *Per contra*. They all said it would be filled at once if the dyke at el-Lahun burst. (*See* M. Jomard, and M. Linant (1873), p. 54.)

(43). *See* the map of Fra Mauro.

(44). *Cf.* the maps of the French Expedition (1809) with those of M. Linant (1854, 1872-73) and Dr. Schweinfurth (1880).

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

- BOTTA, Monuments de Ninive. 5 vols., folio. 1847-1850.
 PLACE, Ninive et l'Assyrie, 1866-1869. 3 vols., folio.
 BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
 ————— Geographische Inschriften Altaegyptische Denkmäler.
 Vols. I—III (Brugsch). Vol. IV, in 2 parts (Dümichen).
 DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
 ————— 2nd series, 1869.
 ————— Altaegyptische Kalender Inschriften, 1866.
 ————— Tempel Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ————— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar.
 ————— Arabic Chrestomathy. 1 vol., texts, and complete glossary.
 DELITZSCH, Assyrische Studien. Heft I, 1874.
 SCHROEDER, Die Phönizische Sprache.
 HAUPT, Die Sumerischen Familiengesetze.
 SCHRADER, Die Keilinschriften und das Alte Testament. 1872.
 RAWLINSON, CANON, Five Great Monarchies. 3 vols.
 ————— 6th and 7th do.
 ————— History of Egypt. 2 vols. 1882.
 OSBURN, The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841-1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824-30. (*Text only.*)
 CHABAS, Mélanges Égyptologiques. 1862-1873.
 ————— L'Égyptologie. Tomes I and II, 1874 and 1875.
 MASPERO, Du genre epistolaire chez les Égyptiens de l'époque
 Phraonique. 8vo. Paris, 1872.
 ————— De Carchemis oppidi Situ et Historia Antiquissimâ.
 8vo. Paris, 1872.

PROCEEDINGS
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TO

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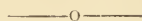
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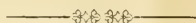


PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

THIRTEENTH SESSION, 1882-83.

First Meeting, 7th November, 1882.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.



The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Society :—The Proceedings. Vol. XXXIV. Nos. 220 and 221. 8vo. 1882.

From the Society of Antiquaries :—Proceedings. Second Series. Vol. VIII, No. 5. April to December, 1880.

List of Fellows, 8th June, 1882. 8vo. London.

From the Royal Geographical Society :—The Proceedings and Monthly Record of Geography. Vol. IV, Nos. 8, 9, and 10. August to October, 1882. 8vo.

From the Geological Society :—Quarterly Journal. Vol. XXXVIII. No. 151. August, 1882.

— List of Fellows. November, 1880. 8vo. London. 1882.

From the Royal Asiatic Society :—The Journal. New Series. Vol. XIV. Parts 3 and 4. July, 1882. 8vo. London. 1882.

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From the North China Branch of the Royal Asiatic Society :—
The Journal. No. 3, December, 1859. Vol. II, No. 1, September, 1860. New Series, Nos. 1 to 4, 1864-67 ; Nos. 6 to 14, 1869-71.

Vol. XVI. Part 2. 8vo. Shanghai. 1882.

— Catalogue of Library. Shanghai. 1872.

From the Royal Institute of British Architects :—The Proceedings.
Session 1881-82. Nos. 18 and 19. July and August. Session 1882-83. No. 1 ; October. 4to. London. 1882.

— Transactions, Session 1881-82. 4to. 1882.

— List of Members, 1882-83. 4to. 1882.

From the Anthropological Institute of Great Britain and Ireland :—
The Journal. Vol. XII. No. 1. August, 1882. 8vo. London.

From the Royal Archæological Institute of Great Britain and Ireland :—The Journal. Vol. XXXIX. Nos. 154, 155. 8vo. 1882. London.

From the Royal Society of Literature :—The Transactions. Second Series. Vol. XII. Part 3. 8vo. London. 1882.

From the Palestine Exploration Fund :—Quarterly Statement, July and October, 1882. 8vo. London. 1882.

From the Société Royal des Antiquaires du Nord :—Mémoires, Nouvelle Série, 1881. 8vo. Copenhagen. 1882.

— Aarboger for Nordisk Oldkyndighed og Historie. Parts 2 and 4. 1881. 8vo. Kjobenhavn. 1882.

From the Anglo-Jewish Association :—The Eleventh Annual Report, 1881-82. 8vo. London.

From the Smithsonian Institution :—List of Foreign Correspondents, January, 1882. 8vo. Washington.

The American Antiquarian and Oriental Journal. Vol. IV, No. 3, July, 1882. 8vo. 1882. Chicago.

From the American Philological Association :—13 Vols. 1869-70 to 1881. 8vo. Hartford, U.S.A.

From the Author, R. V. Lanzzone :—Catalogue of the Egyptian Antiquities in the Museum at Turin, published by the Minister of Public Instruction. 4to. 1881.

From the Author :—Egypt of the Past. By Sir Erasmus Wilson, LL.D., F.R.S. Second Edition. 8vo. London. 1882.

From the Author :—On a German Astronomico - Astrological Manuscript, and on the Origins of the Signs of the Zodiac. By Robert Brown, jun., Esq., F.S.A. London. 4to. 1882.

Reprinted from the *Archæologia*, Vol. XLVII.

From the Author :—Die Sargonsstele des Berliner Museums. Von Eb. Schrader. 4to. Berlin. 1882.

Aus den Abhandlungen der Königl. Akademie der Wissenschaften zu Berlin, 1881.

From the Author :—Pyramids, Bahr-Yûsuf, Moeris, the Labyrinth, and the Sphinx. By F. Cope Whitehouse, M.A.

Privately Printed, 1882. 4to. London.

From the Author :—Remarques sur les Portraits des Rois Assyro-Chaldéens. Par M. J. Menant. 8vo. Paris. 1882.

Extrait des comptes rendus de l'Académie des Inscriptions et Belles Lettres. 4 Serie. Tome IX.

From the Author :—The Origin of the Primitive Home of the Semites. By Geo. Bertin, Esq.

Reprinted from the *Journal of the Anthropological Institute*, Vol. XI, No. 4.

From the Author :—Report on the Progress of Cuneiform Research. By Theo. G. Pinches, Esq.

Reprinted from the Eleventh Annual Report of the President of the Philological Society, May, 1882. 8vo. London.

From the Author :—Biblical Proper Names, Personal and Local. By the Rev. H. G. Tomkins.

Reprinted from the *Journal of the Victoria Institute*. Vol. XVI (?). 8vo. London. 1882.

From the Author :—The Great Discovery of Royal Mummies at Deir-el-Bahari. A Lecture by the Rev. H. G. Tomkins. 12mo. Weston-super-Mare. 1882.

From the Rev. J. Marshall :—An Account of the Manners and Customs of the Modern Egyptians. By Edward William Lane. 2 vols. 8vo. London. 1836.

From Rev. A. F. A. Woodford :—Remarks on some Egyptian Monuments in England. By the Right Hon. C. Yorke and W. Martin Leake, Esq. 4to. London.

Paper read before the Royal Society of Literature, June 6th, 1826.

From W. J. Haywood :—Discoveries at Ephesus, including the site and remains of the great Temple of Diana. By J. T. Wood. 4to. London. 1877.

The following were nominated for election at the next Meeting on December 5th :—

Eugène Autran, Les Charmelles, Geneva.

Captain C. R. Conder, Devon Cottage, Guildford, Surrey.

Rev. Canon John Grainger, D.D., M.R.I.A., Broughshane, Co. Antrim.

Thomas S. Jago, H.B. Majesty's Consul, Jeddah.

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Howell Wills, The Temple.

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To be added to the List of Subscribers :—

The Weston-super-Mare Church Institute, 1, South Parade.

The Alliance Israélite Universelle de Paris, 35, Rue de Tréves, Paris.

A communication from M. E. Révillout was read by the Secretary, "On a Demotic Papyrus containing the malediction of an Egyptian mother on her son embracing Christianity."

This papyrus, belonging to Mr. Dodgson, was, at the request of the President, placed at the disposal of M. Révillout, to lay an account of its contents before the Society. The document, unique of its kind, is particularly interesting, containing as it does a series of maledictions pronounced against a son by his mother, speaking also in the name of the spirit of her deceased husband. It may be

considered as showing the struggle of Egyptian paganism in its decline against Christianity at its dawn. It tells of a man *Petosor*, who having been converted to Christianity, had, according to custom, changed his pagan name, which means "the gift of Osiris," into the Christian name *Peter*. He not only gave up the old religion of Egypt to embrace the doctrine of the Gospel, but it appears that the zeal of the new convert carried him very far, and that he had often uttered threats against paganism then still in power. The wildest converts always acquired a high position by their very violence, and this is the part acted by Peter. M. Révillout was of opinion that he probably held a very high position among the clergy—and his mother reproaches him, that since he had made for himself a god that could kill, he lived with others in abundance, and abandoned his pagan relations. She speaks of his buildings, of his desecrating threats against the temples, and of his sacrilegious parodies of the sacred rites. She represents him always as a kind of chief of a sect, and this is one of the principal reasons for her anger. She wishes by her maledictions to avenge the cause of the gods, outraged and attacked by her son; it is for this reason that, though acting under her own name, as well as for her dead husband, she wrote the solemn protestation which is under consideration. The pious pagan refuses to call her son by the sacred name *Petosor*, which she had given him at his birth, and she shrinks also from accepting the profane name assumed when he was converted. Hence she calls him *Petu*, or *Tu*, simply "The Gift." M. Révillout, after giving a translation of the document, so far as possible, made some interesting remarks on the contents of a papyrus he was about to publish, detailing the discussion between the jackal, *Koufi*, and the Ethiopian cat. No positive statement, he said, could be made as to the exact date of the papyrus, but he pointed out that, as to the character of its writing, it agreed with certain Demotic receipts of the second century, and was, he thought, certainly posterior to the Rhind bilingual papyrus of the century of Augustus.

DR. BIRCH mentioned that the fable of the lion and the rat had already been published by Brugsch Bey. It had been supposed that the fables attributed to Esop had an Egyptian origin; the Egyptians, indeed, thought that all animals were endowed with speech, and perhaps this was the origin of the belief in their oracular power. It would be remembered that in the d'Orbiney Papyrus (Tale of Two Brothers) the cows speak to one another, and the younger brother

understands their discourse. There are also some Assyrian fables of the time of Assurbanipal.

M. RÉVILLOUT stated that the fable of the lion and the rat formed part of the same papyrus as the discussion of the jackal and the cat. Brugsch Bey* had indeed well translated it, but as a separate text.

MR. RENOUF pointed out that in the 125th chapter of the Book of the Dead (line 40), one of the beatitudes of the faithful consists of listening to the great conversation between the donkey and the cat. He did not, however, believe that this conversation was of a fabulous nature. The cat is the sun god; the donkey is either Set (night) or, according to chapter 40, Osiris, that is the sun of yesterday. The conversation therefore of these two personages is of the same nature as that spoken of in Psalm xix, 2, "Day unto day uttereth speech, and night unto night sheweth knowledge."

Remarks were also added by Rev. C. J. Ball, Rev. A. Löwy, and Mr. R. S. Poole.

Thanks were returned to M. Révillout for this communication.

Owing to the lateness of the hour, the second paper by M. Révillout, on Two Contracts of Marriage, of the time of Darius, written in the Demotic character, was postponed.

A Paper — "Some Recent Discoveries bearing on the Ancient History and Chronology of Babylonia," was read by Theo. G. Pinches.

Documents of the reign of Nabonidus have always been regarded by scholars as of the first importance, not only on account of his connections with the nations then rising into prominence, but also on account of the information contained in them regarding the early ages of Babylonian history, made known to us by his many references to the early rulers of Babylonia.

A large number of new and important inscriptions have lately been brought to light by Mr. Hormuzd Rassam's excavations in the site of Sipara or Sepharvaim, lately discovered by him. The greater part of these documents are tablets, referring to the revenues of the temple, dated in the reigns of the kings Šamaš-šum-ukin (Saosduchinos), Kandalanu (Kineladanos), Nabopalassar, Nebuchadnezzar II, Evil-Merodach, Neriglissar, Lâbaši-Marduk (Labosardach), Nabonidus, Cyrus, Cambyses, Bardes, Darius, and Artaxerxes. The importance of these tablets lies in their dates, and in the genealogical

* Zeitschrift für aegypt. Sprach., 1879, p. 47, &c.

tables which, most likely, can be derived from them, to enable us to check the chronology of this time, but their contents are otherwise uninteresting. The gems, however, of the collection are some cylinders from this ancient site, referring principally (as do most of this kind) to the architectural works of the different kings, and containing also praises of the gods, with references to other cities and temples. One of the above-mentioned cylinders, bearing the name of Nabonidus, is especially worthy of mention on account of the important historical notices it contains.

This monument is in an excellent state of preservation, and contains, in three columns, 159 lines of writing, fairly and clearly written. It begins, as usual, with the name and titles of Nabonidus, in the usual style of the Assyrian and Babylonian kings, stating, as in other inscriptions, that he was the son of Nabû-balaṭ-su-iḫbî, the *rubû ʿmḫu* or "powerful prince." Nabonidus then speaks of the temple E-ḫulḫul, "the house of the Moongod, within Ḫarranu," in which that deity had had his seat from remote days, and had set his heart upon that house and city. The Šabmanda, however, had come, and had destroyed the temple, reducing it to ruins. In the "righteous reign" of Nabonidus, Bêl, the great lord, in his love for the rule of this king, required the restoration of the city and temple. To this end, Marduk and Sin, the Moongod, revealed, in a dream, the wishes of Bêl regarding the restoration of the temple. The king, in answer, expressed his willingness to do the work, and complained of the destruction caused by the Šabmanda. What follows this being of the highest historical value, the whole paragraph referring to the dream, &c., is here given:—

"In the beginning of my long reign, Marduk, the great lord, and Sin, the illuminator of heaven and earth, the strengthener of all, showed me a dream. Marduk spoke with me: 'Nabonidus king of Babylon, come up with the horses of thy chariot, build the walls of Ê-ḫulḫul, and have the seat of Sin, the great lord, set within it.' Reverently I spoke to the lord of the gods, Marduk: 'I will build this house of which thou speakest. The Šabmanda destroyed it, and strong was their might.' Marduk spoke with me: 'The Šabmanda, of which thou speakest; they, their country, and the kings going by their side, shall not exist.' In the third year he caused Cyrus, king of Anzan, his young servant, to go with his little army; he overthrew the wide-spreading Šabmanda, he captured Ištumegu (Astyages), king of Šabmanda, and took his treasures to his (own) land."

Nabonidus now executed the command of the gods, received the message, and took upon himself the care of the work. He caused his "vast army" to come from Gaza (Ḥazzati) on the borders of Egypt (Mišir), from the "upper sea across the Euphrates to the lower sea," to restore the temple Ê-hulḥul, which he calls "the house of Sin my lord going by my side, which is within Ḥarran." This temple, Nabonidus then goes on to say, had been restored by Aššur-ban'apli (Assurbanipal), son of Esarhaddon king of Assyria, "the prince going before him."

Nabonidus now, as he says, went on joyfully with the work, and found the cylinders of Aššur-ban'apli king of Assyria, and of Šulman-rištan (Shalmeneser II), son of Aššur-našir-apli. The restorations of Nabonidus, however, according to his own account, went far beyond those of any of "the kings his fathers," who had restored the temple. The brickwork of the walls was covered evidently with a kind of enamel such as has been found at Babylon, and made to appear like white marble,* and figures of the god Laḥmu were placed right and left of the doors. The figure of the god Sin was brought, with that of another deity, from Su-anna (Babylon), and placed "with joy and shouting" in his new shrine at Ḥarran. A long description of the rejoicings in the city now follows, at the end of which Nabonidus says that he did not disturb the inscription of Aššur-ban'apli which he saw, but placed his own with it.

The Babylonian king now goes on to speak of the celebrated temple of the Sun-god, Ê-bara, at Sipara. This temple, he says, had been already restored by Nebuchadnezzar, who had sought for, but had not seen, the ancient cylinders. Forty-five years afterwards Nabonidus excavated the walls and foundations, but was evidently equally unsuccessful. In consequence of this he had the image of the Sun-god taken out of Ê-bara, and placed for a time in another temple. Nabonidus now began a systematic search, excavating no less than eighteen cubits,† and then, he says, "The cylinder of Naram-Sin son of Sargon, which for *three thousand two hundred years* no king going before me had seen, Šamaš, the great lord of Ê-bara, the house, the seat of the joy of his heart, revealed to me." Nabonidus then gives a description of what he did to restore the temple,

* The words are : *ušanbiṭ šaššaniš*, "I caused to shine marble-like." *Šaššaniš* is an adverbial form in *-iš*, from *šaššu*, evidently the Hebrew שָׁשׁוּ, "white marble."

†      *Samnašerit (?) ammat gafari.*

Next comes the description of the restoration of the temple of Anunitum, "the lady of battle, bearer of the bow and mace, accom-
plisher of the behest of Bêl, her father," &c., &c., "she who walks
before the gods, and with the rising and setting sun gladdens the
dominions" of Nabonidus. This temple was called Ê-ulbar, and was
situated in the city named "Sipara of Anunitum."† Nabonidus's
first care was, as usual, to seek for records of the earlier rulers who
had restored the temple, and in this case he was successful in
digging out and reading the record of 𐎶 𐎶𐎵 𐎶𐎥 𐎶𐎥 𐎶𐎥 𐎶𐎥 𐎶𐎥
Šagašalti-Burias, or (as given by another copy) 𐎶 𐎶𐎵 𐎶𐎥 𐎶𐎥 𐎶𐎥
Šaggašti-Burias, son of 𐎶 𐎶𐎵 𐎶𐎥 𐎶𐎥 𐎶𐎥 *Kudur-ri*
Bêl. Since the time of this king (about 1050 B.C.), no other ruler had
restored the temple, and Nabonidus therefore began with vigour the
necessary work, making it more splendid than it had ever been before.
In the invocation of Anunit at the end, he calls upon the goddess
to look, on her entrance into the temple, with favour on the work,
and monthly with the rising and the setting sun to pray to the Moon-
god, the father, her begetter, for good fortune.

At the end of this long inscription, Nabonidus, in the usual set terms, calls upon any future prince whom Šamaš should call to the sovereignty of the people, to restore the ruins of the temple, to look

* The *sibirru* was evidently a weapon which could be thrown by the hand, and which was used in warfare. The name is found upon some gate-sockets of the time of Sennacherib, where they are described as *sibirru* brought from the countries conquered by that king, evidently as mementos of the expeditions. In this *sibirru* is evidently to be found the origin of the orb of modern days; the *sibirru*, however, was not the emblem of power over the world, but the emblem of the long arm of justice, reaching the offender even from a distant place, when the sceptre was powerless.

† Anunit, as will be seen from the above, is the star Venus at the rising and setting of the sun, and for this reason the two Siparas (Sepharvaim) were dedicated to Samas and Anunit.

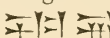
to Cyrus. Cyrus [went] to the land of Ecbatana, his royal city. He carried off from Ecbatana silver, gold, furniture, goods, [and merchandise], and took to the land of Anšan the furniture (and) goods which he had taken."

It will be seen from the above that the two accounts differ to a great extent, and it is probable that that of Cyrus is the more correct, agreeing, as it does, with the story told by Herodotus, who says that the Persians revolted against Astyages under Cyrus, who then marched to Media, and that in the battle which followed, only those of the Medes who knew nothing about the counsels of Harpagus to rebel against Astyages fought bravely against the Persians, and the struggle being of but short duration, was hardly regarded by Cyrus as a resistance to his forces. According to the account taken from the annals, Astyages, coming with an army to capture Cyrus, was given up to him by his own soldiers; according to Nabonidus, Cyrus himself captured Astyages. The account given by the annals, however, is probably the right one. Both versions agree that Cyrus took possession of all the treasures of Astyages.

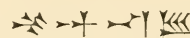
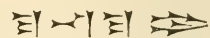
In one other important point, also, the two accounts seem not to agree, and that is the date. Nabonidus says that it was in the third year that Cyrus overthrew the Šabmanda under Astyages, whilst, according to the annals, it should be the sixth year. The probability is, however, that Nabonidus refers to the third year after he had had the dream in which their destruction was promised.

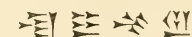
Such is, shortly, the bearing and historical value of the first important point in this inscription, and the only thing that remains to be noticed is the name Šabmanda, which is given to the Medes by Nabonidus. What the name means, and whence it came, it is impossible to say. Sir H. C. Rawlinson thinks that the first character, namely, 𐎶 *Šab*, must have another reading in this case, and he would therefore propose to read *Urmanda*. 𐎶 certainly has the value of *erim*, and one might therefore easily read *Erimmanda*, were it not that two-syllable values are most uncommon in Assyrian and Babylonian, and that *šab* is the only usual value of 𐎶 in the inscriptions. It is best, therefore, to keep, for the present, the reading *Šabmanda*, which is most likely, after all, the correct one.

The next important reference, that which mentions Shalmaneser, agrees with the Assyrian records. For this king's own account of his expedition to Babylonia, see the Transactions of the Soc. Bibl. Arch.,

Vol. VII, p. 104, and following. Shalmaneser, however, does not mention Sipara. It is difficult to see why Shalmaneser is called by Nabonidus Šulman-rištan, unless it be that they wished to distinguish him from the former king of that name, by calling him Shalman the Great. It is also possible that the characters  RIŠ-TAN are translated by *ēšēru* in Babylonian.

Most important, from a chronological point of view, is the fixing of the date (though given evidently in round numbers) of Naram-Sin, son of Sargon I, two of the most celebrated kings of the beginning of the Babylonian empire. The text of the line containing this important fact is as follows :—

  
ša šalalti alap šanê mê šanāti ma - na - ma šarru

  
â - lik maḥ - ri - ia lâ î - mu - ru

*“Which, for three thousand two hundred years, no king going before me had seen.”**

Adding to this date the date of Nabonidus before Christ, say 550 years, we get, for the date of Naram-Sin, 3,750 years B.C. Sargon, father of this king, if he be, as is most likely, the king of whom it is related that his mother placed him in a little ark on the Euphrates, reigned at least forty years, and the date of this early king and hero may therefore be set down at 3,800 B.C.

The 500 years, mentioned in connection with Šaga-salti-Buriaš, gives, for the date of that king, about 1050 years before Christ, and is also of great value for Babylonian chronology.

DR. OPPERT, in congratulating Mr. Pinches on the discovery of the inscription, considered that it was a date that fixed the remote history of Babylonia more firmly than before. He pointed out that the sign *Sab* had been read by Sir Henry Rawlinson as *Ur*, and that Urwanda was the well-known Persian word Uremanda, which now existed in the name Elwend.

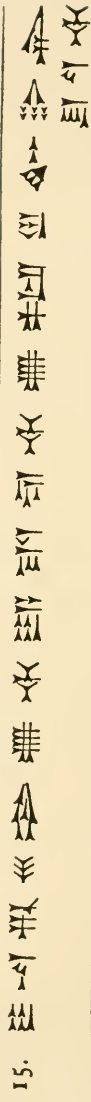
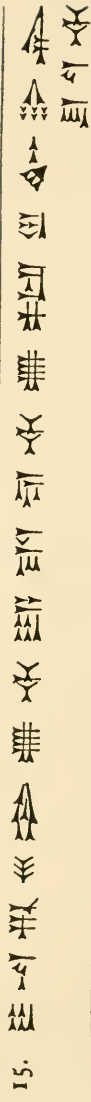
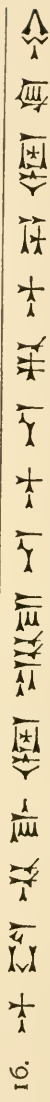
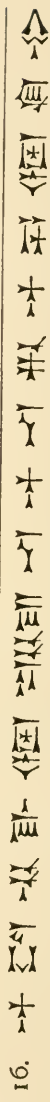
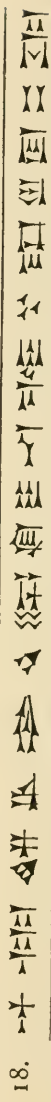
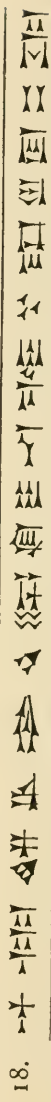
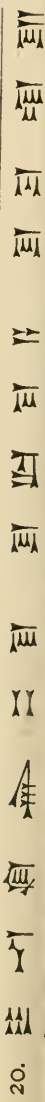
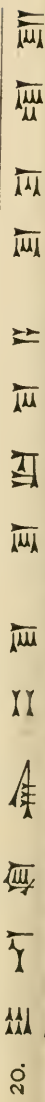
DR. OPPERT also mentioned the discoveries of M. de Sarezec, and gave a translation of one of the statue inscriptions; a detailed description of which, with translations by Dr. Oppert, has already appeared in the *Comptes rendus des inscriptions et belles-lettres*.

* Word for word : “any king going before me not had seen.”

CYLINDER OF NABONIDUS,

DISCOVERED BY H. RASSAM AT ABU HABBA, 1882.

PORTION OF INSCRIPTION RELATING TO THE CONQUEST OF MEDIA
BY THE PERSIANS, UNDER CYRUS.

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二十六
二十七
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三十

Remarks were also added by Dr. Weymouth, Mr. Villiers Stuart, M.P., Rev. Alex. Taylor, Mr. R. S. Poole, Mr. Offord, and the President.

Thanks were returned to Mr. Pinches for his communication, and to Dr. Oppert for his remarks.

The following Communication has been received:—

DEAR MR. RYLANDS,

17th October, 1882.

According to Brugsch's theory of the Exodus, Pihahiroth (Exodus xiv, 2) means, "in the language of the Egyptian texts, *in face of the Khirot*, this being the ancient word which applies exactly to the gulfs of weedy lakes." The inscriptions, we are told, "expressly give to the Egyptian god Amen the title of Lord of the Khirot, that is, 'gulfs' of the lagoons of papyrus."

Dr. Brugsch is the first and (as far as I am aware) the only scholar who knows of such a word as *Khirot* signifying gulfs, whether of weedy lakes or of any other kind. In order to produce this word it is necessary to assign the value χ_{er} to the hieroglyphic sign  (representing the Oxyrynchus), which has hitherto, on indisputable evidence, received the value χ_a . To the new value which he thinks he has discovered, Dr. Brugsch, of course, attaches very great importance. He has written a good deal on the subject in both his Dictionaries, and in the *Zeitschrift für ägyptische Sprache*. His efforts have not been crowned with complete success. Dr. Karl Piehl, an admirable Swedish scholar, in his review of the Hieroglyphic Dictionary, says that the new reading is "encore dénuée de preuves suffisantes," and Professor Ebers, in the last number but one of the *Zeitschrift*, has an excellent article pointing out the weakness of the evidence produced by Brugsch, and strongly protesting against the unscientific method adopted by him. In this protest I beg most respectfully and cordially to join, with all the modesty and humility due to a scholar whose untiring activity and learning have laid us all under so many deep obligations. Dr. Brugsch has begun a rejoinder to Ebers, and though he has not yet finished it, I believe that I am sufficiently familiar with the evidence, as far as it can be depended upon, to feel satisfied that although my ignorance on the subject of Pihahiroth does not greatly trouble my soul, yet this attempt to identify it involves the wrong reading of many words, a fatally erroneous and exploded system of etymology, and false theories of decipherment

and language. I do not, however, wish to intrude into the controversy between the principal disputants, beyond delivering my testimony on some cardinal points of the evidence which has been adduced.

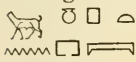
1. I beg to testify that Mr. Goodwin was very far indeed from being convinced that he had discovered a “festgestellte Variante  = .” He was always under the impression that the  in    was a preposition, utterly unconnected in sound with the sign . For a long time he thought that *sân* was the probable value of this sign, and when he discovered another reading in one of the Leyden papyri, he published it in the hope that other observations might confirm or disprove it. But long after this he spoke of the reading as a very questionable one. In the first place he doubted whether the first sign in the papyrus before  was really . It is very unlike it if compared with undoubted instances of that sign in other parts of the papyrus; where, moreover, it is always accompanied by the supplemental sign . In the next place Goodwin was much too sagacious a man to found an argument on what might be either a different reading* or a simple blunder. The papyrus is a very valuable one, but its value lies not in its antiquity or authority, but in its completeness and its almost unmutilated condition. It is just as likely to give a different or a faulty reading as any other papyrus. Mr. Goodwin was very much disposed to go back to his old reading *sân*, derived from a comparison of *Todt.* 136, 15 with 133, 13.

2. I am unable to acquiesce in Dr. Brugsch's statement about the group     , nor can I admit that his facsimile gives the “genaue Darstellung des Wortes.” A “genaue Darstellung” ought to enable one to compare the word with its neighbours. Now in the Hood papyrus the sign  in each case rises high above all

* “A different reading” was Goodwin's objection to the instances I produced in which  occurs in some copies of *Todt.* 15 and    in others; and I never hesitated to acknowledge that this might be the case. M. Maspero has now (*Zeitschrift*, 1882, p. 130) produced proof that in the earliest times  was = *seps*. A la bonne heure! There is no philological difficulty whatever about *this* value, as there was about *sep*; but it was *sep* and not *seps* for which both Goodwin and Brugsch contended (*Zeitschrift*, 1867, pp. 85 and 98), and there was no authority for *seps* till M. Maspero found it. Queen Hatasu must now disappear from history, but so must Hiasnop; and Hatshepsu must occupy their places.

the other signs in the same line, and the sign below it acquires also an abnormal development. But it is quite impossible to say with certainty that this sign is an  and not a . In the freedom of cursive writing these two signs are often made so like to one another that it is utterly impossible to distinguish between them. And this manuscript is no exception to the rule. Dr. Birch, who has charge of the manuscript, and whose authority on the subject cannot be surpassed, inspected it carefully with me, and he will, I am sure, bear witness to what I am saying.

But supposing that the letter is , how can we be sure that, in a word of which there is no other instance known, the writer has not made a mistake? I can only express my astonishment at the assertion that one can hardly imagine an Egyptian *grammateus* to have made the same mistake twice in a reduplicated word. There is no imaginable blunder of which such a person may not have been guilty.

3. Dr. Brugsch has sought in vain for copies of *Todt. 110a* containing the passage which, according to the Turin papyrus, has , and according to the papyrus of Sutesmes, . He will find the passage in the papyrus of Nebseni, and in the Leyden papyrus of which I have just spoken. Both of these papyri agree with the Turin *Todtenbuch* in reading . "A different reading," not a variant of ! For reasons of my own, which are elsewhere stated, I should prefer the latter. I do not think either of the readings implies thunder, or that thunder was considered by the Egyptians as the snoring of Set.

4. Brugsch attaches great importance to what he calls the "(dialektische) Variante"    = ; the latter group, according to him, being *hrt* or *hlt*. The "dialectic" equivalence, then, is *χrat* for *hrat*.

There is a double mistake here. The feminine group , as I have recently said, is to be read *uat*, and I challenge Dr. Brugsch to produce evidence to the contrary. I know as well as he that  without the  is sometimes = *hr*, but it *never* has this value, or that of *māten* in the word . It is amusing to see how, from ignorance of this fact, Dr. Brugsch, in his recent additions to his *Lexicon*, has failed to see the full force of one of his own arguments. In order

to prove that ∇ was read *up*, he quotes an *alliterative* text beginning ∇  , which he reads *up-na māten* instead of *up-na uat*.

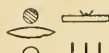
The stick, I would sincerely hope (were I not a Christian and a philanthropist), was most liberally applied to the back and shoulders of the wretch who, instead of ∇   painted   , without in the least foreseeing that his stupid blunder would, some thousand years later on, induce one of the most learned Egyptologists to imagine that he had discovered "a dialectic variant," when he had merely dropped upon a mare's nest. The only extenuating circumstance that I can think of is, that I have occasionally met, in cursive texts, with the sign ∇ so written as to suggest the sign , and if Dr. Brugsch has not done so till now I shall be surprised. But the inscriptions from which this instance is taken are so full of errors that Dr. Erman scrupulously avoided quoting them in his dissertation on Egyptian plurals.

M. Naville speaks of the negligence and the "*fautes grossières*" in the tomb of Rameses IV.

5. Is it however a *faute grossière* to write  or    for  ? A most gross error truly, and deserving a triple bastinado. But I am not aware that such an error was actually committed by the most ignorant or negligent Egyptian scribe. It is Dr. Brugsch who has simply misunderstood the very simple texts to which he refers on this point.

If he had found ∇  , ∇   or even    (   might have been too dangerous) he would at once have known that the word preceding  was not the phonetic equivalent of the sign signifying *body*, but a preposition governing it. And such is the well-known word  *xer*, the signification of which has nothing in common with that of  *χat*. The passage quoted (p. 83) by Dr. Brugsch will at once be understood after this explanation. The words of Rā are addressed not to "the body," but to "*him who is in the body*."   is not "O Körper verborgener," but "O thou *who art in obscurity*," or "who hast come" to obscurity.

On turning back the pages of Champollion's *Notices* (II, 611) to which Dr. Brugsch refers, the same preposition appears under the

forms  |,  (p. 609). The  here is the suffix  *tu*,* which several prepositions (e.g.   =   ) assume together with a corresponding modification of meaning, very much like the Latin prepositions *in*, *prae*, *sub*, *inter*, *præter*, *subter*. And Egyptian prepositions may become prepositional adjectives; and as these adjectives may sometimes be used substantively, I may as well here speak of  , a word which occurs not unfrequently, and which Dr. Brugsch has most luckily not thought of, or he might have favoured us with a good number of supposed "variants" of  |.

The prepositions  *er*, and  *χer* (very often vocalised  *χra*), have very similar, though not identical, meanings and uses. The former is rendered by *eis*, the latter by *πρὸς* in the bilingual inscriptions. The plural adjectival form   *âru*, "quæ attinent ad," assumes the form  | | | (written  | |  | |  | |  | | *âriu*, *Litanies du Soleil*, xviii, 68) in the special metaphysical sense of the internal *nature* or *essence* of a person, such as a god. The plural form   *χertu* is frequently found with a similar meaning. We frequently read of a god   | | |  *šetâ âru-f*, "who hides his nature," and we also read of the god    *šetâ χertu-f*. M. Naville, who has probably not adverted to the prepositional origin of these words, has nevertheless quite rightly apprehended their meaning by observing their use. Of the latter word he says, "Le mot   est très vague, l'allemand das Wesen' est ce qui correspondrait peut-être le mieux au sens du, mot égyptien." (*Litanie*, p. 95. note 52.)

6.   *χenrà*, is not a variant or even a form of   . It is a different word altogether, and it has a different sense. And what is more, it is wrongly written. *χenrà* or *χenràu*    is the form which occurs in some of the finest MSS. of the *Book of the Dead*. See, e.g., the Papyrus of Sutes, and the splendid papyrus

*   is the variant of  in the recently discovered texts of the ancient Empire.

lately published at Leyden, at the passage where the Turin Ritual has   . It is never confounded with  , which occurs in the same line (c. 1, 3) with it.* The determinative  which is found in the word   (*Denk.*, II, 150), suggests the notion of *binding*, *nexus*; and this sense appears to be applicable wherever the word is found. It fits in admirably with the sense of the passage quoted by Dr. Brugsch from the temple of Medinet Abu, where a faulty determinative has been attached to it. Every scholar knows that this is by no means a rare phenomenon in the texts of that period. With this word  ,    implying female *connexions*, are clearly allied. (If, by the way, $\omega\epsilon\lambda\epsilon\tau$, *sponsa*, is its "Koptische Nachfolge," it would be desirable to know through what extraordinary accident the final τ has been preserved in Coptic.)—*Liberavi animam meam*.

Very truly yours,

P. LE P. RENOUF.

P.S.—As this letter is likely to appear before the paper on Egyptian mythology which I read to the Society last March, I had better say at once that I understand by    χa *pet*, not thunder, but *rain*, literally "fall of the sky;" χa being connected with the Coptic $\mathfrak{Z}\epsilon\iota$, *cadere*, *decidere*, *ruina*. The kindred word  χat is a *dead* body, $\pi\tau\epsilon\mu\alpha$, *cadaver*, and the     of the Ebers Papyrus are *dejectiones animi*.

* Between the two words the group generally written     *untuu*, in hieroglyphics, occurs. It is wonderful that on the strength of a doubtful variant of the base period, Dr. Brugsch should have changed the transcription of a number of words from *un* to *tem*. If Coptic etymologies are to have any weight in the question, what can be more decisive than $\text{O}\mathfrak{Z}\epsilon\eta\tau$ (Jonah 1, 5) for a word which Dr. Brugsch renders "Der Bauch eines Schiffes?"  is *un* and  is *tu* in all the classical period. All that he says is insufficient to show that   is not a blunder in *Todt.*, 93, 2, which is full of the grossest faults, as a comparison with other MSS. will show. The old word  χu probably suggested the later , and the words *tu* and χu , both signifying *evil*, got confounded.

The following communication has been received from Mr. George Bertin :—

ON THE CHARACTER AND INFLUENCE OF THE ACCENT IN THE
AKKADIAN AND ASSYRIAN WORDS.

While investigating the Akkadian and Assyrian poetry, I have arrived at a conclusion of some importance as to the influence of the accent in the phonetic decay and generation of words in these two languages.

Assyrian, like Hebrew, had the accent on the last or penultimate syllable of words; Akkadian, on the contrary, had primitively the accent on the antepenultimate, and even sometimes on the pre-antepenultimate. In both languages the accent was strong, and all sounds clear and broad. Those who have studied the development and decay of language in general will easily see what the result of such a state of things would be.

In Akkadian the tendency was to drop final syllables, and indeed all syllables not having the accent—a thing that has actually happened in English. In Assyrian, on the contrary, the accent being on the last or penultimate syllable, it preserved the word intact, or its initial syllable alone was lost. Two tongues of such an opposite and even antagonistic character, spoken side by side for centuries, must have left many traces of the necessary struggle, and the words passing from one into the other must have been more or less altered.

The Akkadian words, which had already been reduced to monosyllabics when borrowed by the Assyrians, had their last consonant doubled, to express the accent and turn them into dissyllabics :—

<i>al</i>	becomes	<i>allu</i>	for	<i>á-lu</i> .
<i>gug</i>	„	<i>kukku</i>	„	<i>kú-ku</i> .

Polysyllabics are treated in the same way :—

<i>idim</i>	becomes	<i>idimmu</i>	for	<i>idí-mu</i> .
<i>utuk</i>	„	<i>udukku</i>	„	<i>udú-ku</i> .
<i>tukul</i>	„	<i>tukullu</i>	„	<i>tukú-lu</i> .
<i>gukul</i>	„	<i>gukkullu</i>	„	<i>gukkú-lu</i> .

It may be objected that if the Assyrians had borrowed from Akkadian a word having the accent on a certain syllable, they would have preserved it there; this, however, is not what has occurred in similar circumstances in other tongues. For instance, French has always its very feeble accent on the last syllable, and the foreign

words it borrows are treated according to this rule without taking into account the foreign accent: *examén* for the Latin *exámen*, *omnibús* for *ómnibus*, *dilettánti* for *dilettánti*. The Assyrian did the same. There seem, however, to be an attempt to represent the primitive foreign accent in a few words, as *gukkállu*, from *gúkal*.

What is of the utmost importance is that while the process of phonetic decay was going on in Akkadian, and the words more and more reduced till they became all monosyllabics, the fuller and more primitive form was preserved in the Assyrian words borrowed at an earlier stage; so—

<i>kā</i> ,	in Assyrian	<i>kāgu</i> ,	supposes an Akk. form	<i>ká'aga</i> .
<i>dī</i>	„	<i>dūg</i>	„	<i>dī'iga</i> .
<i>kī</i>	„	<i>kikū</i>	„	<i>kí'ka</i> .
<i>gū</i>	„	<i>guṭṭu</i>	„	<i>gū'uta</i> .
<i>lamma</i>	„	<i>lamaššu</i>	„	<i>lá'masa</i> .
<i>zal</i>	„	<i>azalu</i>	„	<i>azá'la</i> .
<i>bara</i>	„	<i>parakku</i>	„	<i>bár'aga</i> .
<i>asirra</i>	„	<i>asurraku</i>	„	<i>asír'raga</i> .
<i>dama</i>	„	<i>edamukku</i>	„	<i>adám'aga</i> .
[or <i>adama</i>]				
<i>dara</i>	„	<i>turaḥu</i>	„	<i>dár'aga</i> .
<i>ana</i>	„	<i>anaku</i>	„	<i>án'aga</i> , etc.

It is easy to see that of these supposed forms many are already decayed and shortened from more primitive and longer ones.

As Assyrian was not exempt from phonetical decay, it sometimes lost or weakened the syllable preceding its accent, so we have:—

<i>killu</i>	for	<i>akkílu</i> ,	from the Akkadian	<i>akkil</i> .
<i>edimmu</i>	„	<i>kidímu</i>	„	„ <i>gidim</i> .
<i>nangaru</i>	„	<i>nagáru</i>	„	„ <i>nagar</i> .

Several other important conclusions might be drawn from these comparisons, and from the influence of the accent in Akkadian and Assyrian.

All the older and longer Akkadian forms terminate in *g* (in Assyrian represented by *k* or *ḫ*). Mr. Pinches, who had already noticed this fact, was inclined to believe that we had here an old case-ending, fallen into disuse, but accidentally preserved in a few words, and treated as an integrant part of them, as in *kalag*, *azag*, *pulug*, etc.

Assyrian (that is, the Semitic dialect of the cuneiform inscriptions) must have been spoken at the earliest period collaterally with Akkadian, as it has borrowed words at all stages of their phonetical decay : first stage, *asurraku*, *anaku* ; second stage, *gukkullu*, *azalu* ; third stage, *šūru*, *dū*.

PAPERS UPON ASSYRIAN GRAMMAR.

BY THEO. G. PINCHES.

INTRODUCTORY.

Assyrian was the tongue of the inhabitants of the district extending from the shores of the Persian Gulf on the south, to Armenia on the north, and from Elam and Persia on the east, to Phœnicia on the west. The people who spoke this language formed, originally, one nation, but split, in ancient times, into two, each having its own king. Notwithstanding, however, this separation, and the enmity which these two nations afterwards bore towards each other, the speech of each remained, even to the last, practically the same, the differences being so slight as hardly to amount to provincialisms.

An examination of the construction of the Assyrian language, presented to us in the numerous inscriptions, indicates that the people who spoke it were early separated from intercourse with the other Semitic tribes, and their language, therefore, struck out a course especially its own, and the difference between Assyrian and the other Semitic tongues is often very great. It is especially in the verbs that this departure is to be seen, and for this reason it has been thought well to treat of them first.

If it be really the case that the so-called permansive tense is a late formation (and there is every reason to regard it as such), then the same must be said for the corresponding tense (the perfect) in the other Semitic languages. Even at the time when the separation of the various tribes took place, however, the tendency to form this tense existed, and it was then most likely in full use, but confined to the third person.* To the latest times any participle form could be used in Assyrian as a permansive, and take the endings of that tense. Another departure from the usages of the Semitic tongues, is the partial loss and partial change of meaning of the forms in *u* (in Hebrew the Pual and Hophal, and in Arabic the

* See page 31.

passive forms of the various conjugations). Assyrian most likely had, at first, both the ordinary forms, and those having *u* as the vowel, but without any distinctive meaning, at least such as is found in Hebrew and Arabic. The examples of these forms which exist, that is, forms having the vowel *u* between the first and second radicals, or after the voice-formative, are only to be found in the infinitive and permansive of the intensive (Piel) stem, and the same tenses of the Shaphel. These forms have almost wholly replaced those in *a*, and have not necessarily a passive meaning.

Other verbal differences also exist. The primitive forms, in Assyrian, are to be found, to a great extent, in the various other Semitic tongues, the chief difference being that the Shaphel conjugation is in full use. The most striking thing, however, is the regular use not only of those secondary forms which insert the letter *t*,* but also of those longer and more interesting tertiary forms which insert the particle *tan*,† indicating either speed or frequency.

To the above list of interesting verbal differences may be added the strange Niphal forms of those verbs weak of the first radical, in which the *n*, either with or without a vowel between, is doubled‡—evidently indicating a nazalization of the vowel representing the lost or weakened consonant; and those secondary (and tertiary) Niphal-forms which, dropping their *n* before the inserted *t*, will, perhaps, help to explain the Hebrew Niphal infinitive (הִקְטִיל). The importance, also, of the real tense-distinctions attached to the long and short forms of the imperfect, cannot be overlooked, and it is proposed, in these papers, to give many examples of their use for comparison.

Assyrian is also much richer in pronominal roots than the other Semitic tongues. For the first person singular of the personal pronoun, for example, no less than six words or forms are to be found,§

* The reflexive meaning of this particle in Assyrian seems to be best rendered by adding the word "self," with a pronoun, to the phrase. Thus *iskun* means "he made" (either he himself or by proxy), but *istakin*, "he himself made."

† See the paradigm, p. 25. Some of these forms are not found in the case of the strong verb, but that they were once in use is proved by the fact that the verbs weak of the first radical could be used in these voices. Examples of the use of these interesting forms will be given in the course of these papers.

‡ *Nangugu* (from *agāgu*), "to be angered;" *innipis* (from *ēpēsu*), "it was made."

§ These are : *anaku*, *iāu*, *iāti*, *iātima*, *iāši*, and *āsi*.

and for the second person singular the same number.* The greater part of those expressing the first person are formed from the root *iau*,† and this word being, as it really seems, the Assyrian representative of the Heb. הָיָה “to be,” shows how, clashing with the Assyrian form of the word Jehovah (*Iáu*), the divine name fell into disuse in Assyrian, and was replaced by *ilu*, a word probably of Akkadian origin. The importance of Assyrian in the science of Semitic philology will therefore readily be seen.

The Assyrian tongue seems, in the earliest times, to have been that of the inhabitants of the south or Babylonia. Large colonies, however, were probably sent out northwards, and the language was, in this way, taken almost as far as the mountains of Armenia. Long before this emigration the Assyrian (or, to speak more correctly, Babylonian) language came into contact with a speech of an entirely different character and genius—the Akkadian, and its dialect, Sumerian. It can easily be understood, therefore, that, as the two peoples were in close contact, the Assyrian language became greatly changed, a number of foreign words being introduced, and the grammar being, to a certain extent, modified, and made something like that of the Akkado-Sumerian language. Assyrian, however, kept to the last its distinctly Semitic character, and, while taking in freely words borrowed from the Akkadian, nevertheless retained in use most of the Semitic equivalents of those words, so that it was seldom needful to draw from a foreign source except for the purpose of bringing greater elegance into the composition.

Assyrian, like most other tongues, had dialects, but, in consequence of the newness of the study, their peculiarities are not easily detected. Most of the texts come from Nineveh and Babylon, and only give, therefore, examples of the language spoken at those places. Judging from these texts, one would say that not only the spelling, but also the composition of the phrases are based, to a great extent, upon tradition and usage, the style being modelled upon ancient translations of the Sumerian and Akkadian records, of which both nations had copies, and for this reason not only the written, but also the spoken language, seems hardly to have differed. It was in Assyria, however, that the clearer and purer pronunciation was kept,

* *Atta* (m.), *atti* (f.), *káta* (*kátam*), *kási*, *kú*, and *kummu* (*kúmu* = *kúwu* = *kú'u*?).

† See W.A.I. IV, p. 68, col. v, l. 59 : *Iáu, šit libbía, šêra tušarpidi*, “Me (and) the offspring of my heart, thou causedest to spread abroad in the land.” *Iáu* could also be used in the nominative.

and a more careful use of the case-endings of the nouns, &c., observed. The true folk-speech is undoubtedly to be found in those interesting letter-tablets in which the people are to be seen in the more ordinary occupations of life, though not entirely apart from officialism. It is in this popular language that those ground-texts of the science of Assyriology, the Achæmenian inscriptions, are composed.

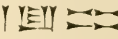
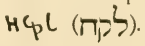
In the very cities, however, where the classical language was most used, seems to have been a tongue, or, rather a form of speech, of a rougher kind, in use among the trading population. How far this language really differed from the literary language it is impossible to say, for the texts which have come down to us contain only the technical terms of trade needful to the occupation of the people, and a free use is also made of those ideographs which render the language, at times, so puzzling to the modern student.

In Babylonia, these trade-documents were always written by the professional scribe, who belonged, at least to some extent, to the learned class, and who observed, therefore, the traditions which he had learnt at school. This custom of employing professional scribes was also, most likely, in force in Assyria. These scribes seem to have possessed, besides the Assyrian or wedge writing, also a knowledge of the Phœnician characters, as the dockets sometimes written on the edge of those trade-tablets show. To these documents and their Phœnician legends, as well as to the correspondence-tablets, must we look, in order to gain an insight into the tongue of the more common people of those ancient empires. These trade-dockets also indicate that not only (as shown by the bilingual lists and syllabaries) were the Assyrians aware of the trilateralism of their language,* but that they also had a knowledge, in some cases, of the original forms of their own weakened verbal roots.†

THE VERB AND ITS FORMS.

In Assyrian, as in all the other Semitic languages, the verb or root is trilateral, that is, it has three consonantal letters. Irregular verbs, properly speaking, are extremely rare, such irregularities as are found being only caused by the weakening or loss of one of the radical

* This fact is interesting if we consider the great amount of phonetic decay from which the roots had suffered.

† Compare, for example, the Assyrian form of the proper name,  *Lu-ku*, with its Phœnician equivalent  (לִּקָּה). See W.A.I., III, pl. No. 5, l. 20 and 37.

letters, which, in Assyrian, becomes a mere vowel, and, as such, assimilates with the formatives.

The strong verb, in Assyrian, has twelve voices, formed, as in the other Semitic tongues, by the addition or insertion of certain servile letters, which modify the meaning in different ways. Of these twelve voices, four are primary, four secondary, and four tertiary, the two latter classes being formed from the first by inserting *t* and *tan* after the first radical or after the voice-formative. Taking the strong verb as our model, the following forms show the infinitive of each voice :—

I.	II.	III.	IV.
1. šakānu	1. naškunu	1. šukunu	1. šušunu
2. šitakunu	2. itaškunu	2. šitakkunu	2. [šitaškunu]
3. šitankunu	3. [itanaškunu]	3. [šitanakkunu]	3. [šitanaškunu]

It will be seen that the primary forms correspond to the Kal, Niphal, and Piel, and that the secondary form of Shaphel corresponds to the Istaphal of Hebrew and Ethiopic.

In Assyrian the verb has four moods, namely, the indicative, the precativ, the imperative, and the infinitive.

The primary tenses are, the permansive, the aorist or imperfect, and the present or future. The first-named is formed by suffixes only, and answers to the perfect of the other Semitic languages ; the two latter are formed by both prefixes and suffixes, and answer to the imperfect of the other tongues.

THE PERMANISIVE KAL.

The following are the forms of the Permansive Kal, restored from the various forms found in the texts.

STRONG VERES.

šakānu, “to accomplish.”

lamānu, “to be evil.”

Sing.

1.	{ 𐎶 𐎠𐎫 𐎠𐎢𐎽 𐎶 𐎶 𐎠𐎫 𐎠𐎢𐎽	{ šaknaku, taklak	{ 𐎶 𐎠𐎢𐎽 𐎶	[limnaku]
2.	𐎶 𐎠𐎫 𐎠𐎢𐎽 𐎶 𐎠𐎢𐎽 𐎶	šaknāta	𐎶 𐎠𐎢𐎽 𐎶 𐎠𐎢𐎽 𐎶	[limnāta]
3. m.	𐎶 𐎠𐎫 𐎠𐎢𐎽 𐎶 𐎠𐎢𐎽 𐎶	šaknu, šakin	{ 𐎶 𐎠𐎢𐎽 𐎶 𐎶 𐎠𐎢𐎽 𐎶 𐎶 𐎠𐎢𐎽 𐎶	{ lumnu, lumun, limun
3. f.	𐎶 𐎠𐎫 𐎠𐎢𐎽 𐎶	šaknat	𐎶 𐎠𐎢𐎽 𐎶	limnit

Plural.

1.	{ 𐤔𐤁𐤏𐤏𐤓 𐤔𐤁𐤏𐤏𐤓 𐤔𐤁𐤏𐤏𐤓	šaknāni, baṭṭānu }	𐤔𐤁𐤏𐤏𐤓	[limnāni]
2.	𐤔𐤁𐤏𐤏𐤓	šaknatunu	𐤔𐤁𐤏𐤏𐤓	limnītunu
3. m.	𐤔𐤁𐤏𐤏𐤓	šaknū,	𐤔𐤁𐤏𐤏𐤓	[lumnū]
3. f.	𐤔𐤁𐤏𐤏𐤓	šaknā	𐤔𐤁𐤏𐤏𐤓	[lumna]

Dual.

3.	𐤔𐤁𐤏𐤏𐤓	šaknā	𐤔𐤁𐤏𐤏𐤓	[lumnā]
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VERBS WEAK OF THE FIRST RADICAL.

âšābu, "to dwell" (𐤔𐤁)

êpēšu, "to make" (𐤔𐤏)

Sing.

1.	𐤔𐤁𐤏𐤏𐤓	âšbaku	𐤔𐤏𐤔𐤏𐤓	[êpšaku]
2.	𐤔𐤁𐤏𐤏𐤓	âšbāta	𐤔𐤏𐤔𐤏𐤓	[êpšāta]
3. m.	𐤔𐤁𐤏𐤏𐤓	âšbu	𐤔𐤏𐤔𐤏𐤓, 𐤔𐤏𐤔𐤏𐤓	êpiš, êpšu
3. f.	𐤔𐤁𐤏𐤏𐤓	âšbat	𐤔𐤏𐤔𐤏𐤓	êpšit

Plural.

1.	𐤔𐤁𐤏𐤏𐤓	[âšbāni]	𐤔𐤏𐤔𐤏𐤓	[êpšāni]
2.	𐤔𐤁𐤏𐤏𐤓	[âšbatunu]	𐤔𐤏𐤔𐤏𐤓	êpšītunu
3. m.	{ 𐤔𐤁𐤏𐤏𐤓 𐤔𐤁𐤏𐤏𐤓	{ âšbū, âšbūni }	𐤔𐤏𐤔𐤏𐤓	êpšu
3. f.	𐤔𐤁𐤏𐤏𐤓	[âšbā]	𐤔𐤏𐤔𐤏𐤓	êpšā

Dual.

3.	𐤔𐤁𐤏𐤏𐤓	[âšbā]	𐤔𐤏𐤔𐤏𐤓	[êpšā]
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VERBS WEAK OF THE SECOND RADICAL.

kānu, "to be firm." (𐤏𐤏)

dāku, "to kill." (𐤏𐤏)

Sing.

1.	𐤏𐤏𐤏𐤏𐤓	kīnaku	𐤏𐤏𐤏𐤏𐤓	[dēkaku]
2.	𐤏𐤏𐤏𐤏𐤓	[kīnāta]	𐤏𐤏𐤏𐤏𐤓	[dēkāta]
3. m.	{ 𐤏𐤏𐤏𐤏𐤓 𐤏𐤏𐤏𐤏𐤓 𐤏𐤏𐤏𐤏𐤓	{ kīnu, kēnu kīn }	𐤏𐤏𐤏𐤏𐤓	dēku
3. f.	𐤏𐤏𐤏𐤏𐤓	kīnat	𐤏𐤏𐤏𐤏𐤓	dēkat

Plural.

1.		[kināni]		[dēkāni]
2.		[kinatunu]		[dēkatunu]
3. <i>m.</i>		kīnū		dēkū, dikū
3. <i>f.</i>		kīnā		dēkā

Dual.

3.		kīnā		[dēkā]
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VERBS WEAK OF THE THIRD RADICAL.

našû, "to raise" ().

tēbû, "to come" ().

Sing.

1.		našāku		tēbāku
2.		našāta, tamāti		[tēbāta]
3. <i>m.</i>		našû		tēbû
3. <i>f.</i>		našāt		[tēbāt]

Plural.

1.		[našāni]		[tēbāni]
2.		našātunu		[tēbātunu]
3. <i>m.</i>		našû, našûni		tēbû, tibû, tēbûni tibûni
3. <i>f.</i>		našā		[tēbā]

Dual.

3.		našā		[tēbā]
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EXAMPLES OF THE FOREGOING FORMS.

1st pers. sing. :—

Ana-ku a - na êli šarri bê - li - ia ra - aḥ - ša - ku

"I upon the king my lord trust."

Raḥṣaku is from the root , in Chaldee "to trust." Lower down in this same text occurs the same sentence, but with the word

𐤀𐤁𐤁 𐤁𐤀𐤁 *taklak*, meaning also “I trust,” substituted for *rahşaku*. *Taklak* (root *takālu*) gives an example of the dropping of the *u* of the person-ending.

1st pers. plural :—

𐤀𐤁𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁
 ū ni - i - ni ina šilli šarri bê - li - i - ni
“and we in the protection of the king our lord
 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁
 a - na da - riš bal - ſa - a - nu
for ever live.”

2nd pers. sing. :—

𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁
 at - ta pî - ia it - ti - ſu ſa - ak - na - a - ta
“Thou my words with him establishest.”*

2nd pers. plural :—

𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁
 lim - ni - tu - nu (part of an incantation against
“Ye are evil.” evil spirits).

3rd pers. sing. mas. :—

𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁
 Sa - pi - in mâti nu - kur - ti. Ba - laſ nap - har
“He destroys† the hostile land.” “The life of the whole of
 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁
 ma - a - ti ga - tuš - ſu tam - hu
the land his hand holds.”

3rd pers. sing. fem. :—

𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁 𐤁𐤀𐤁
 ū - ſur - ta - ſu - nu lim - ni - it
“their shrine (dwelling place) is evil.”

* Lit. “mouth.”

† Lit. “(He) destroying,” or “Destroyer of.”

3rd pers. plural mas. :—

𐎶 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵
 a - na ša - a - ri ır - bit - ti me - lam - me saḥ - pu
 “to the four winds (their) glory they blow.”

3rd pers. dual :—

𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵 𐎶𐎵𐎶𐎵
 lû šak - na šêpā - ka
 “May thy feet be placed.”

From the above it will be seen that the terminations of the permansive are :—for the first pers. sing. *ku*, plur. *āni* or *ānu* ; for the second pers. sing. *āta*, plur. *tunu* ; for the third person sing. masc. *u* (or the construct form of the participle without any ending) ; fem. *at*, plur. masc. *ū*, fem. *ā* ; the dual-ending for both genders being *a*.

All the above forms are that of the participle, the short *i* of which is regularly dropped, but reappears when the word loses its vowel-ending or vowel of connection, hence the masc. *šakin* by the side of *šaknu*. Other participle-forms could be thus used, so that we find, besides those above given, such forms as *šihriku*, “I was young,” *limnit*, “she is evil.” From these two examples it would seem that the form ⁵فعل, which is rather rare, was used for verbs expressing a condition ⁵فعل for those expressing an action, or the result of an action.*

The permansive or perfect tense in Assyrian differs from those of the other Semitic languages in several ways. It has lost the form for the second person fem. singular and plural, but it retains the dual, restricted, however, to the third person. It differs from the Hebrew, Arabic, &c., and agrees with the Ethiopic, in having *ku* as the ending of the first person singular, but the *t*-stem is kept for the second person singular and plural. It is worthy of notice that in the second person singular the two forms of ending, *āta* and *āti*, are used indifferently for both masculine and feminine, and that the distinctive form of the

* Often, in reality, the passive idea, as in the phrase 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 *šēru ša ina pēnti bašlu*, “flesh which by fire is cooked,” where *bašlu* is the form ⁵فعل for ⁵فعل.

feminine plural also has not yet been found. It has been conjectured that the feminine form of the second person plural, following the analogy of *šunu*, "they," fem. *šina*, should be *-tina* (*šaknatina*). *Šunu* and *šina*, however, belong to a different class, being quite independent pronouns, and we should therefore expect, if anything, a formation analogous with that of those Semitic tongues,* in which the root *t-m* is used for the masculine and *t-n* for the feminine (قَتَلْتُمْ, قَتَلْتَنَ; قَتَلْتُمْ, قَتَلْتَنَ), but in Assyrian the *t-n* stem is used for the masculine—a fact which rather implies that, as in the singular, one form (namely *tunu*) is used to express both genders also in the plural.† As will be seen farther on, the plural of the imperative, as well as the second person plural of the aorist and present tenses, had also only one form for both genders.

The third person of the permansive, in all its genders and numbers, is only the participle, or *nomen verbi*, with its proper endings. The forms *šaknu* and *šakin* are respectively the nominative and construct forms of the masculine; *šaknat* is the construct of the feminine singular; *šaknū*, the plural form (usually defectively written with short *u*), is evidently shortened from the rarer form ending in *-ūni*, an old nominal plural, of which some traces exist (as for example *lūnim*, "bulls"), but which is regularly shortened to *-u* (compare such words as *ūmū rabūtum*, "great days," *ana šīmu gamrūti*, "for complete prices," &c).‡ Examples of the feminine form ending in *-a* are rare, but one is to be found in Tiglath-pileser I, col. VI, line 99, in the word *'abta* (written *a-ab-ta*), permansive of *'abātu*, "to be destroyed," and refers to the word *ikallātu*, "palaces," a feminine plural, in line 94. (The dual ending in *-a* is the usual masculine or feminine

* The Aramaic and Samaritan masculine endings תָּן were probably formed under the Babylonian influence.

† The pronoun of the second person plural, *attunu*, "ye," shows the same stem with the syllable *an* (the *n* of which, as in Hebrew, &c., is assimilated to the following *t*). This form is usually masculine, but in W.A.I. IV, pl. 56, l. 38, seems to refer to the feminine *ēršitum*, "earth," thus indicating that it was of common gender. If this be the case, it is the same also for the suffixed pronoun *kinu*, "you," which, though used for the masculine, corresponds with the Arabic and Hebrew feminine forms كُنَّ and كُن. (See l. 37 of the text above quoted.)

‡ Sayce, "Assyrian Grammar for Comparative Purposes," p. 122. It is not unlikely, however, that this is only an imitation of the Akkadian idiom, in which the adjective alone takes the termination of the plural.

nominal form, used for such objects as, either by nature or art, are in pairs.) The feminine plural ending *-ā* is evidently a form shortened from an old fem. plural of the participle *šaknānu*, in the same way as the masculine *šaknū*, from *šaknūni*. Using, perhaps from the earliest times, these participle forms as a permansive, followed by the full form of the first and second persons where needed, there grew up this new tense with the pronouns, shortened as much as possible, attached. The indifferent use of *-āta* and *-āti* as second person singular, implies that at that time the difference of the forms of the pronoun in *-a* and *-i* (*atta* (*m.*) *atti* (*f.*) "thou") had ceased to be regarded, and therefore the form ending in *-āta* could be used, by preference, to express both genders. The diverse ways, in the various Semitic languages, of forming this permansive or perfect tense, implies that its full development took place after the separation of the different dialects, though, as it is found in all the Semitic languages, the inclination to this formation had already existed for a very long time.

Like *šakānu* is conjugated in the permansive : *takālu*, "to trust;" *raḥāṣu*, "to trust;" *magāru*, "to obey;" *tamāḥu*, "to hold;" *katāmu*, "to cover," &c., &c. *šabātu*, "to seize," makes, in the third pers. sing. masc. : *šabat*.

Like *lamānu* : *šaḥāru*, "to be young, little;" *nakāsu*, "to be cut off," "separated."

Like *āšābu* : *āmāru*, "to see" (א"פ); *ālāku*, "to go" (ה"פ); *ālādu*, "to beget" (י"פ); like *ēpēšu* : *ēzēzu*, "to be strong" (ע"פ); *ēšēru*, "to direct" (ש"פ).

Like *kānu* : *šāru*, "to be supreme;" *nāḥu*, "to rest." Some words have *a* as inner vowel, as *ṭāba*, "they two are good," others *u*, as *rūkat*, "she is remote" (verb originally Ayin-guttural).

Like *našū* : *ramū*, "to set;" like *tēbū* : *šēbū*, "to assemble."

The next Meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, December 5th, 1882, at 8 p.m., when the following Papers will be read:—

By REV. W. H. SEWELL:—"Houses and Householders of Palestine at the time of Christ."

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

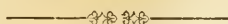
-
- BOTTA, Monuments de Ninive. 5 vols., folio. 1847-1850.
 PLACE, Ninive et l'Assyrie, 1866-1869. 3 vols., folio.
 BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
 ——— Geographische Inschriften Altaegyptische Denkmäler.
 Vols. I—III (Brugsch). Vol. IV, in 2 parts (Dümichen).
 DUMICHEN, Historische Inschriften, &c., 2nd series, 1869.
 ——— 1st series, 1867.
 ——— Altaegyptische Kalender Inschriften, 1866.
 ——— Tempel Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ——— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar and Chrestomathy.
 SCHROEDER, Die Phönizische Sprache.
 HAUPT, Die Sumerischen Familiengesetze.
 SCHRADER, Die Keilinschriften und das Alte Testament. 1872.
 RAWLINSON, CANON, Five Great Monarchies. 3 vols.
 ——— 6th and 7th do.
 ——— History of Egypt. 2 vol. 1882.
 OSBURN, The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841-1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824-30. (*Text only.*)
 CHABAS, Mélanges Égyptologiques. 1862-1873.
 ——— L'Égyptologie. Tomes I and II, 1874 and 1875.
 MASPERO, Du genre epistolaire chez les Égyptiens de l'époque
 Phraonique. 8vo. Paris, 1872.
 ——— De Carchemis oppidi Situ et Historia Antiquissimâ.
 8vo. Paris, 1872.
 RHIND, A. H., Thebes: its Tombs and Tenants. 1862.

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

THIRTEENTH SESSION, 1882-83.

Second Meeting, 5th December, 1882.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.



The President referred to the loss the Society had suffered by the death of one of its oldest Vice-Presidents, The Right Hon. the Earl of Harrowby, K.G., &c., &c.

The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Geographical Society :—The Proceedings and Monthly Record of Geography. Vol. IV, No. 1. 8vo. November, 1882.

From the Geological Society :—Quarterly Journal. Vol. XXXVIII. Part 4. No. 152. November 1, 1882.

— List of Fellows. November, 1882. 8vo. London. 1882.

From the North China Branch of the Royal Asiatic Society :—The Journal. New Series. Vol. XVII. Part 1. 8vo. Shanghai. 1882.

From the Royal Institute of British Architects :—The Proceedings. Session 1882 83. Nos. 2 and 3. 4to. London. 1882.

From the Royal Institute of British Architects :—Transactions, Session 1879-80. 4to. 1880.

— Proceedings, 1879-80. 4to. 1880.

From the Anthropological Institute of Great Britain and Ireland :—The Journal. Vol. XII. No. 2. November, 1882. 8vo. London.

From the Philosophical Society of Glasgow :—The Proceedings, 1881-82. Vol. XII. No. 2. 8vo. Glasgow. 1882.

From the Publishers, Messrs. Smith, Elder and Co. :—The Cities of Egypt. By Reginald Stuart Poole. 8vo. London. 1882.

From the Author :—Die französischen Ausgrabungen in Chaldäa. Von Julius Oppert.

Reprinted from the Report of the Fifth Oriental Congress. Berlin. 8vo. 1882.

The following have been purchased by the Council for the Library of the Society :—

The Temples of the Jews and the other Buildings in the Haram Area at Jerusalem. By James Fergusson, Esq., D.C.L., F.R.S., &c. London. 4to. 1878.

Description of the House and Museum of Sir John Soane. 4to. London. 1830.

The Land of Midian (revisited). By Richard F. Burton. 2 vols. 8vo. London. 1879.

Les Villes retrouvées. Par Georges Hanno. Thèbes d'Égypte, Ninive, Babylone, Troie, Carthage, Pompei, Herculaneum. Paris. (Bibliothèque des Merveilles.) 8vo. 1881.

Les Tombeaux. Par Lucien Augé. Paris. (Bibliothèque des Merveilles.) 1879.

The following were nominated for election at the next Meeting on January 9th, 1883 :—

Miss H. M. Adair, 40, Chester Terrace, N.W.

George Briddle, 208, South Fifth Street, Philadelphia, U.S.A.

Miss Dixon, 47, Thurloe Square, South Kensington, S.W.

Rev. Alexander James Harrison, D.D., Ph.D., &c., Waterfoot Vicarage, Manchester.

Rev. R. Lovett, Religious Tract Society, 56, Paternoster Row, E.C.

D. G. Lyon, Petersteinweg, 51, III, Leipzig.

The following were duly elected Members of the Society :—

Eugène Autran, Les Charmelles, Geneva.

Captain C. R. Conder, Devon Cottage, Guildford, Surrey.

Rev. Canon John Grainger, D.D., M.R.I.A., Broughshane, Co. Antrim.

Thomas S. Jago, H.B. Majesty's Consul, Jeddah.

Rev. H. C. Reichardt, Tunis.

Thos. Wilberforce Stoughton, Lynton Villa, Beulah Hill, Upper Norwood.

Charles Alfred Swinburne, Upper Hamilton Terrace, St. John's Wood.

Frederick A. White, Kinross House, Cromwell Road, S.W.

Howell Wills, The Temple.

Coventry A. Woodhouse, 9, Pembridge Crescent, Bayswater, W.

To be added to the List of Subscribers :—

The Weston-super-Mare Church Institute.

The Alliance Israélite Universelle de Paris, 35, Rue de Tréves, Paris.

A Paper was read "On the Houses and Householders of Palestine in the time of Christ," by the Rev. W. H. Sewell.

After some introductory remarks respecting the four kinds of building stone in Palestine, and the method of *hewing* it by skilled stone-hewers; and after pointing out the difference between the Levantine large inn or khan, and the smaller rest-house—two buildings in general use by travellers,

Mr. Sewell described the *one-roomed house* of stone of a village, distinguishing two sorts; one sort having half the interior used by beasts of burden; the other sort having wholly separate and apart such stabling and offices, both for dead and live stock, as are mentioned in the Bible. The *court house*, which was defined to mean a house enclosing at least one court or courtyard open to the air, was next described, especially that occupied by Caiaphas.

Prætorium, the name given to Pilate's Court-house, as well as to others, was explained, and an exactly-corresponding English equivalent

stated. After adverting to the *prison house* at Philippi, which had a resident jailor, and in Jerusalem to the prison house without one, occupied A.D. 32 by the Twelve Apostles, and A.D. 43 perhaps by Peter also, which had inner and outer wards as well as an iron-plated outside door, Mr. Sewell briefly referred to the *palaces* of the Bible, namely, places of worship, royal residences, and public buildings. He next defined the English terms colonnade, arcade, porch, and cloister, and proceeded to notice certain terms used in the New Testament for shelters from the weather and for entrances into places, and explained what he believed was meant by *stoa*, *pyle*, *pylônes*, and *pylæ*. He commenced describing an ordinary court-house in the time of Christ by drawing attention to the *house porch* (*pylon*), which was either constructed with a door, or was arched, and without one. The rooms of an ordinary house were shown to be chiefly two : one the large *reception-room*, used also as the *guest-chamber*, large enough to hold 30 guests on the occasion of the feast which Samuel made for King Saul ; the other, the *closet*, was a small but habitable room, like the Royal Closet at Windsor. In Palestine the closet served as a bedroom, a bride-chamber, a sickroom, a strong-room ; and though usually small and closet-like, sometimes had itself a closet. Micaiah announced that Zedekiah the son of Chenaanah would have to conceal himself in a closet's closet.

The housetop, or roof that is flat, was next referred to, and shown to be usual in every part of the Levant. On it was the *summerhouse*, (Heb. *aliyyah*, Greek *hyperôon*) usually the best room of the house. This, a most important term of the domestic architecture of the Greek Testament, was specially noticed and illustrated. Its name was justified by reference to the handsome summerhouses erected in different parts of the Royal Gardens, Kew ; its appearance and position were compared with the upper part of the Radcliffe Observatory, Oxford, as seen in 1854. The summerhouse was shown to have been used by King Eglon for taking a *siesta* by day ; by King David for retirement in sorrow ; by the Apostles for divine worship ; by St. Paul for the celebration of Holy Communion ; by St. Peter for private prayer, as well as for the repose of the dead body of a Christian lady, Tabitha. The description of the houses of the Holy Land terminated with a reference to the *windows* of a house ; and to the *relative parts of a room*, in which was pointed out the place of honour.

Mr. Sewell concluded his paper by treating of the inhabitants of the Holy Land, whom he divided into three classes : *Cavedwellers*, found between the Lake of Galilee and the Hauran, and the Horites of Petra. *Tent-dwellers*, namely—

Children of Hagar, Abraham's Egyptian handmaid ;

Children of Ishmael, Abraham's son by Hagar ;

Children of Kedar, Abraham's grandson by Hagar ;

Children of Midian, Abraham's son by Keturah, and *Arabians*, whom Mr. Sewell believes to be all descendants of one common ancestor, and the Bedawîn their surviving posterity.

With respect to *Housedwellers*, after pointing out that the house-dwelling population of Palestine never took to tents except once yearly, at the Feast of Tabernacles, and in the time of war, of pilgrimage, and crowded gatherings, Mr. Sewell gave the names of known house-owners, the sites of their houses, and the social position taken by such householders in the time of Christ ; and inferred from the style in which their houses were furnished, the costly and extensive wardrobes people kept ; their jewellery and precious stones ; the populousness of their household establishments, ruled as they were by highly paid and powerful officials, and by the sumptuousness and frequency of their feasts, that the countrymen of Christ were possessed of great wealth.

DR. REICHARDT wished to point out one or two instances in which he thought Mr. Sewell was wrong in his conclusions. With reference to the *Summer House*, he mentioned that with a temperature of between 90 and 110 degrees in the shade, some cooler place would be required than the top of a house, burning with the concentrated rays of a hot sun. In the heat of the day the natives sought a cooler place—the coolest place to be found—*i.e.*, the room in the lower part of the house, built of stone, sometimes with a floor of marble, fountains, &c. Such rooms Dr. Reichardt took to be the *Summer House*, and they are used for the *siesta* ; from this room, in the cooler part of the day, the natives migrate to another chamber, where they smoke, drink coffee, and sleep.

Houses were not always exactly the same in arrangement, but the *Summer House* is always the *Khan*.* One-roomed houses were not to be found in the cities, but in the villages, and Dr. Reichardt

* *Kaa'a* in Damascus ; *Mandarah* in Cairo.

thought that as matters moved slowly in the East, it was probable that the houses are now pretty much the same as they were in the time of Abraham. It was also his opinion that the old ruins being of stone, and of the Roman and Greek periods, it was most probable that the houses of the rich were of stone and those of the poor of mud.

The REV. A. Löwy observed that in the Hebrew Scriptures there were three terms relating to house or habitation which, in part, were connected with the identical Aryan names.

Ba-yith (house) is purely Semitic, and recurs in all the languages akin to Hebrew; but it is remarkable that whilst in Hebrew the verb "to lodge" is expressed by *lûn*, the other Semitic languages employ the vocable *bath*, which originally meant "to be housed." In the Aramaic version of the Pentateuch, Onkelos, in his rendering of Genesis xxviii, 11, employs (with regard to Jacob's night rest on the uncovered ground) *u-BATHtamman*. This general employment of the word *bath*, in the sense of "spending the night in some place," proves that before the Semites were split up into different nations, they employed the *ba-yith* or *ba'it* principally to describe night lodgings.

A second term for habitation is *ma'on*. The word is employed poetically with regard to the heavens as the habitation of the Deity (see Deuteronomy, xxvi, 15, "Look down from Thy holy habitation, from heaven"). The same term was employed by Semitic pagans, who worshipped the *Baal ma'on* (see Numbers xxxii, 38). This word appears to correspond with the Pehlevi term *mêhan*, with *maethana* or *maethanya* in the Zendavesta, and it recurs in the Latin *mansio*. The third term *hana* was chiefly employed with regard to encampments. In Isaiah xxix, 1, however, occurs the phrase *kiryath hana David*, which seems to admit of the literal translation, "the city of the *hana* (or habitation) of David." Just because *hana* is here treated like a proper name, it did not receive the ordinary genitival *th*. As a verb *hana*, and as a noun *mahanah*, this vocable is met with in numberless instances throughout the Hebrew Bible. In the Pehlevi it has the form of *khânuk*, and in modern Persian *hâneh*.

With regard to the structure of Jewish houses in Palestine, Mr. Löwy suggested that in the course of a thousand or fifteen hundred years radical changes must have been introduced in consequence of the intercourse of the Israelites with foreign nations.

Captives returning to the land of their fathers, and foreign settlers, who at a later period introduced Greek and Roman fashions in the Holy Land, must have very materially affected the taste of the Jewish inhabitants, especially in the principal cities. The poverty of the poorer classes might well make them adhere to a conservative principle of simplicity; but the wealthier portion eagerly adopted the architectural display of the Greeks and the Romans. Were it not the fact that Josephus gives glowing accounts of beautiful buildings raised in the style of Greek architecture, or that the ancient expounders of the Pentateuch protested against the extravagance in the erection of theatres, balnea, &c., it might be seen in the pages of the Mishna that the terms relating to common buildings are of a purely Semitic origin; but those terms which relate to palatial structures are chiefly derived from Greek or Latin. As instances, Mr. Löwy cited the Rabbinical term *akhsadra*, a hall or ante-room (in Greek ἐξέδρα, in Latin *exedra*); *prosдор*, a vestibule, apparently connected with the Greek ποδῶρον; *traklin*, a dining room, from *triclinium*.

REV. W. WRIGHT, D.D., referred to the classification of the races made by Mr. Sewell. He thought that the proper division was the Bedawin, or desert-dwellers, the Fellaheen, or cultivators of the soil who lived in villages, and the dwellers in cities. Although there were, as in all countries of the East, men who took up their residence in caves, he (Dr. Wright) had seen very few, and there really was no distinct class that could be called cave-dwellers. Near the Yarmouk Valley, and in a few other places, there were a few families living in subterranean places through necessity. He had spent nights in such places himself through necessity, but he could hardly be called a troglodite. Too much stress must not be laid on the word rich man in the East. The riches of a man was a comparative term: £30,000 would, in Damascus, entitle a man to be called rich, whereas in some places so small a sum as £30 would make a man rich. The tracing of all tent-dwellers to Abraham could not be accepted. When Abraham reached the Land of Promise "the Canaanite was then in the land," and the Bedawins were then in the desert.

The President, the Rev. Charles J. Ball, and Mr. G. Bertin, joined in the discussion, and Mr. Theo. G. Pinches added some remarks on recently discovered tablets giving interesting particulars of the laws of house-holding among the Assyrians. These will be submitted to the Society at a future meeting.

MR. SEWELL, in reply, admitted that owing to the oppressed state and misgovernment of Palestine, such noble summerhouses of stone as that shown in Messrs. Arundell and Tarte's diagram were no longer common; although humble representatives of them are still to be frequently seen. A traveller visiting the Armenian Convent at Jerusalem in January, 1882, saw the cells of the monks opening upon the housetop. Shelters of the sort, peculiarly shaped like the lower halves of the English capital letter M, are to this day common enough on the housetops in Egypt. In prosperous times such summerhouses would not be (as often at present) mere boughs of oleander intertwined like wickerwork, or light awnings, beneath which probably few Orientals, if any, would shelter themselves from the heat of the blazing noonday sun. These *hyperôa* would, by rich people, be built of stone substantially, of thick walls, yet through-aired (חֲרֹחַ Jer. xxii, 14), cool, and suited for taking a *siesta*; a use to which King Eglon's *hyperôon* seems certainly to have been put. It was necessary to *go up to* an hyperoon (LXX, 2 Ki, xviii, 33; Acts i, 13; ix, 37, 39); to carry an object *up to it* (LXX, 3 Ki, xvii, 19): and likewise necessary to *go down from* an hyperoon (Tobit iii, 18); to carry an object *down from it* (LXX, 3 Ki, xvii, 23).

With regard to the suggestion that, in a two-storied Syrian house (not a common sort of ancient building, to judge by the remains), the *ὑπερίων* (which is the Septuagint term for עֲלִיָּה) *was not the modern alliyeh, but really the modern ardiyeh or First Floor*, the matter stood thus:—

King Eglon was found by his attendants "fallen down dead upon the earth" (Judg. iii, 25). It was admitted that the king was in some elevated structure of or belonging to the house. It would scarcely be natural to term the stone floor of a first story room "the earth." As however the flat roofs or housetops now are, and probably always were, made up of consolidated *earth*, it would, on the contrary, be most natural to say of a slain man fallen upon such a housetop, that he "was fallen down dead on the earth" (ἐπὶ τῆς γῆς).

Thanks were returned for these communications.

DR. REICHARDT exhibited a cylinder-seal, upon which he made some remarks, to be published with an engraving in a future number of the *Proceedings*.

The following Communication has been received :—

THE KAPPADOKIAN CUNEIFORM INSCRIPTION NOW AT
KAISARIYEH.

DEAR MR. RYLANDS,

In 1880 Sir Charles Wilson forwarded to me a copy of an inscription which he had come across at Kaisarieh, and which he thought might possibly turn out to be Hittite. The copy, however, was not sufficiently distinct to allow me to pronounce an opinion upon the characters of which it was composed ; all I could see was that it consisted of five lines, divided from one another by straight lines, just as Hittite texts are. When I was at Smyrna in March, 1881, Mr. W. M. Ramsay put into my hands a rubbing of the inscription made by Sir C. Wilson, but I was still unable to make out what the characters composing it were. I could only assert that they were not Hittite, and suggest that they had a Gnostic origin.

Last summer, however, Mr. Ramsay himself, when at Kaisarieh, examined the stone on which the inscription is found, and made a copy both of the sculptures and of the inscription with which it is adorned, besides a squeeze of the inscription. This and his copy he sent me, and I at once recognized that the characters were those of the Assyrian cuneiform syllabary, though of a very barbarous type. Shortly afterwards I received another squeeze of the same inscription from Dr. Gwyther ; and this it is which is published in the present number of the *Proceedings*.

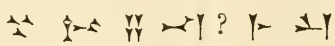
I learn from Mr. Ramsay that the stone on which the inscription is engraved was discovered many years ago along with another at a village between Amasia and Amisos (*Samsûn*), and was purchased there by an Armenian. The village may perhaps have been Zilleh (the ancient Zela), where the artificial mound called the tumulus of Semiramis by Strabo still exists. The stones are both of white marble, stained black on the surface, and belong to the same curious type of art. One of them has a short inscription in characters unlike any I have seen before. The art is of the strangest possible kind. Heads like those on Greek medallions, says Mr. Ramsay, but hideously ugly, "are mingled with the most curious imagery ;—a column with a crowned woman's head, the crown being bitten by a serpent, which is coiled round another column ; a crescent moon and rayed star ; a hideous woman standing on a pedestal, and holding a naked child, crowned like herself, suspended from each hand." The stone, how-

ever, on which the cuneiform inscription is incised bears a sculpture of a much more important character. This is engraved under the inscription, and represents a king seated in the Assyrian style, with his fan-bearers behind him, and his attendants bringing a body of captives before him. The latter, remarks Mr. Ramsay, "wear the dress represented in the sculptures of Phrygia, while the costume of the king and his attendants is distinctly Hittite." It is the dress which has been made familiar to us by the sculptures of Boghaz Keui and Eyuk, of Ibreez and Karabel, to which we must now add, thanks to Dr. Gwyther's photographs, of Carchemish also. The seated monarch is touching the forehead of a crouching captive with the butt end of his spear. It is plain that the capture of some town and the submission of its inhabitants are depicted, and that the inscription above the scene ought to have reference to the event.

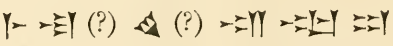
The barbarous character of the writing, and the fact that the inscription has been worn away in the top corner on the right hand side, while a crack runs through the middle of it, make it somewhat difficult to read. The difficulty is increased by our ignorance of the language in which it is written. The ideographs and determinatives in it, however, are sufficiently clear to show what its general purport must be. I should transcribe it thus in ordinary Assyrian characters:—

1. 

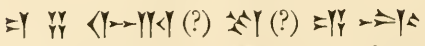
... D.P. D.P. Tar - * - ti - si

*Before Tar - * tisi the king*
2. 

D.P. Gu - za - na * me ka

of the land of Guzana
3. 

me la (?) khi (?) D.P. ka - ab

..... the city of Kab
4. 

iz za ar te e bal

.....
5. 

e - ri - me

he has captured (?).

I am specially pleased to find mention made of "the god Tar," as it goes to verify my system of Hittite decipherment. Before the discovery of the name in this inscription I had concluded that a god Tar must have existed by the side of *Tar-kus*, "the son of Tar," just as Sandan (or Sanda) exists by the side of Sanda-kos. The character which follows the name of Tar is unfortunately doubtful. It may possibly be meant for $\langle \text{𐎶} = \text{𐎶𐎶𐎶} \text{ sul or dun, or for the Babylonian form of } \text{𐎶} = \text{𐎶𐎶} \text{ un.}$ The land of Guzana, mentioned in the second line, is not otherwise known, but it will have been the native name of the northern district of Kappadokia in which the inscription was found. The crack in the stone makes it impossible to identify the character which follows. In the third line the characters *la-khi* are very doubtful, as one character only seems intended, not two. Instead of *Ka-ab*, we might read *Ka-su-ab*, breaking the first character into two ; but I do not think this is likely. At the beginning of the next line the division of the characters causes a difficulty. We might read $\text{𐎶} | \text{𐎶𐎶} \text{ iz-kha or even } \text{𐎶} | \text{𐎶𐎶} \text{ un.}$ The crack renders my restoration of the next two characters uncertain. *Erime* in the last line ought, according to analogy, to be the third person singular of a verb. Now *ma* seems to be the suffix of this person in the two Kappadokian cuneiform contract tablets brought to light last year by Mr. Pinches, to which Mr. Ramsay's visit to Kaisarieh last summer has now added five more (see *Proceedings*, Dec., 1881, p. 36). Moreover, if my system of decipherment is right, *me* is the suffix of the same person in the Hittite inscriptions, and, as I have shown on another occasion, everything goes to indicate that the Hittites were the "White Syrians" of Kappadokia, who lived in the neighbourhood of the spot where the inscription I have been discussing was discovered. If further proof of this fact were needed, it has been afforded by the photographs taken by Dr. Gwyther at Jerablûs and Merash. The style of art, the dress, and the attitude of the figures at Carchemish are those of the figures of Boghaz Keui and Eyuk. The Hittites came from the north, as their boots declare, and conquered a portion of the Semites in northern Syria ; it is not surprising, therefore, that the ideograph they employed to denote "a country" resembles the mountain-peaks of central Kappadokia.

The forms of the characters used in this inscription of Tar-*tis belong, as I have already said, to the syllabary of Nineveh. They must have been borrowed, therefore, before the overthrow of the Assyrian empire, and when the conquests of Sargon had extended

Assyrian influence in Asia Minor. But their forms are so uncouth that it is plain this influence could not have been very far-reaching. The bilingual boss of Tarkondêmos had already informed us that the cuneiform mode of writing had been introduced into Asia Minor, though, as at Van, some of the characters had undergone slight modifications in the process.

The division of the lines, which we find also in the Kappadokian contract-tablets, is peculiar, and since it is characteristic of the Hittite inscriptions, while it is foreign to the Assyrian ones, it indicates that the people to whom both this inscription and the contract-tablets belong, had previously been familiar with the Hittite mode of writing. Another indication of the same fact may be found in the little upright line with which this inscription ends. It is, I believe, a representative of the little line which is placed at the end of a paragraph in the Hittite texts.

By way of appendix I would return to the cuneiform inscription which I copied at Smyrna on a small gryphon's head from Kappadokia, published in the *Proceedings* of this Society for Nov., 1881, p. 19). It was brought to Smyrna along with a hæmatite cylinder, now in my possession, with a cuneiform inscription upon it which I am unable to read, and it is now, I believe, in the Louvre. The characters are those of the Amardian or "Proto-Medic" syllabary, with the exception of one, 𐎶𐎵 *dhu*, which belongs to the later Babylonian. The inscription reads as follows:—

$\text{𐎶𐎵} \text{ } \text{𐎶𐎵} \text{ } \text{𐎶𐎵} \text{ } \text{𐎶} \text{ } \text{𐎶𐎵} \text{ } \text{𐎶} \text{ } \text{𐎶𐎵} \text{ } \text{𐎶}$
 Ku - ar - hu - man the king Man-dhu - mas,

that is to say, "Kwaruman the king, the Mandhumian." How the Amardian syllabary found its way into Kappadokia is more than I can conjecture. It can hardly have done so except during the reign of Kyros.

A. H. SAYCE.

Queen's College, Oxford, Oct. 23rd, 1882.

NOTE.—I must mention that owing to the shallowness of the characters on the front of the squeeze, the back had to be photographed and then reversed. This gives to the lines and characters on the plate of the inscription (to be issued with the *Proceedings* for January) the appearance of their being raised, whereas on the original stone they are of course *incised*.—W.H.R.

DEAR MR. RYLANDS,

Having been able, through your kindness, to examine the squeeze sent to Professor Sayce, of an inscription found by Mr. Ramsay, and the photograph, which will be published in the *Proceedings*, an explanation of the origin of the inscription has occurred to me.

This inscription is no doubt an attempt to reproduce cuneiform characters, but has, I think, been done by a most unskilful hand, and I fail to trace some of the characters Professor Sayce has transcribed. We learn from him that the inscription is on a marble slab ; it would therefore be a *stèle*, and it must be noted that this would be the only instance known of a *stèle* with so small an inscription. The wedges, if they can be so called, are very irregularly chipped in all directions, though there seems to be an attempt at a slanting direction from right to left ; the shapeless form of certain characters does not appear to proceed from want of skill of the writer, as in other cases he has made them in the direction required, and marble being a soft substance, the carving offered no difficulty. All seems therefore to show that we have here a forgery ; but from what was it copied ?

The small clay contract tablets are abundant in Turkey, and they have besides been multiplied by the Arabs by means of casting. The writing of these tablets is cursive ; the wedges are therefore slanting, and on account of the form of the wooden style, assume a peculiar shape. Those who have studied and copied these contract tablets, will easily see that the wedges reproduced in the inscription now under discussion have been imitated from a contract tablet. This at once explains why the wedges are slanting and of so curious a shape, though they must have been picked out at random, for they appear to me to form no real groups composing what Assyriologists call characters. The straight lines which divide the rows of wedges are, I think, imitated from the seals, where such lines always occur. As to the figures represented on the stone, from what can be gathered from Professor Sayce's note, it seems that they are also imitated from those on seals and other Assyrian monuments.

I therefore think that this inscription ought to be classed with the so-called boss of Tarkondemos, and that it is premature to draw conclusions touching the intercourses of the Kappadokians, Hittites, and Assyrians, and the origin of a writing.

Besides, the figures represented do not help much, as archæologists are far from agreeing about the connection of the representations at Jerabis, Karabel, Boghaz Keui, and Eyuk.

Yours faithfully,

G. BERTIN.

The Anniversary Meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, January 9th, 1883, at 8 p.m., when the Council and Officers of the Society will be elected, and the usual business of the Meeting transacted.

NOTE.—Members are reminded that their Subscriptions become due on January 1st, and should be sent to the Treasurer, B. T. BOSANQUET, ESQ., 73, Lombard Street, London, E.C.

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

- BOTTA, Monuments de Ninive. 5 vols., folio. 1847-1850.
 PLACE, Ninive et l'Assyrie, 1866-1869. 3 vols., folio.
 BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
 ————— Geographische Inschriften Altaegyptische Denkmäler.
 Vols. I—III (Brugsch).
 ————— Recueil de Monuments Égyptiens, copiés sur lieux et
 publiés par H. Brugsch et J. Dümichen. (4 vols., and
 the text by Dümichen of vols. 3 and 4.)
 DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
 ————— 2nd series, 1869.
 ————— Altaegyptische Kalender-Inschriften, 1866.
 ————— Tempel-Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ————— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar and Chrestomathy.
 SCHROEDER, Die Phönizische Sprache.
 HAUPT, Die Sumerischen Familiengesetze.
 SCHRADER, Die Keilinschriften und das Alte Testament. 1872.
 RAWLINSON, CANON, Five Great Monarchies. 3 vols.
 ————— 6th and 7th do.
 ————— History of Egypt. 2 vols. 1882.
 OSBURN, The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841-1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824-30. (*Text only.*)
 CHABAS, Mélanges Égyptologiques. 1862-1873.
 ————— L'Égyptologie. Tomes I and II, 1874 and 1875.
 MASPERO, Du genre épistolaire chez les Égyptiens de l'époque
 Pharaonique. 8vo. Paris, 1872.
 ————— De Carchemis oppidi Situ et Historia Antiquissimâ.
 8vo. Paris, 1872.
 RHIND, A. H., Thebes : its Tombs and Tenants. 1862.

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

THIRTEENTH SESSION, 1882-83.

Third Meeting, 9th January, 1883.

(ANNIVERSARY.)

SAMUEL BIRCH, D.C.L., LL.D., &c., PRESIDENT,
IN THE CHAIR.

The President referred in fitting terms to the loss the Society had sustained by the death of Mr. Samuel R. Bosanquet, of Dingestow Court, Monmouth, one of the earliest Members of the Society.

The following Presents were announced, and thanks ordered to be returned to the Donors:—

From the Royal Geographical Society:—The Proceedings and Monthly Record of Geography. Vol. V. No. 1. 8vo. January, 1883.

From the Royal Institute of British Architects:—The Proceedings. Session 1882-83. Nos. 4 and 5. 4to. London. 1882.

From the American Oriental Society:—The Proceedings. New York. October, 1882.

From the Secretary of State for India in Council:—Sacred Books of the East. Vol. XIV. Sacred Laws. Part 2. Vasishtha Bhandhâyana. Translated by G. Bühler. Vol. XVIII. Pahlavi Texts. Part 2. Translated by E. W. West. 8vo. 1882.

From the Author :—Die Keilinschriften und das Alte Testament.
Von Eb. Schrader. Giessen. 1883.

From the Author :—Is Fingal's Cave Artificial? By F. Cope-
Whitehouse, M.A.

Reprinted from "The Popular Science Monthly," December,
1882. 4to. New York, U.S.A.

From the Author :—The Pedigree of the Devil. By Frederic
T. Hall, F.R.A.S. 8vo. London. 1883.

From the Author :—Salaminia (Cyprus). The History, Treasures,
and Antiquities of Salamis, in the Island of Cyprus. By
Alexander Palma Di Cesnola, F.S.A. 8vo. London. 1882.

From the Publishers, Messrs. Reeves and Turner :—The Origin
and Significance of the Great Pyramid. By C. Staniland Wake.
8vo. London. 1882.

The following were nominated for election at the next
meeting, February 6th :—

William Godsell, Auditors' Department, India Office.

Gustavus Masson, B.A., Harrow.

H. Morris, Eastcote House, St. John's Park, Blackheath.

Mrs. Symmons, 42, South Street, Greenwich.

Professor W. A. Stevens, Theological Seminary, Rochester, New
York, U.S.A.

Rev. Thos. Walker, M.A., St. Augustine's College, Canterbury.

The following were elected Members of the Society :—

Miss H. M. Adair, 40, Chester Terrace, N.W.

George Biddle, 208, South Fifth Street, Philadelphia, U.S.A.

Miss Dixon, 47, Thurloe Square, South Kensington, S.W.

Rev. Alexander James Harrison, D.D., Ph.D., &c., Waterfoot
Vicarage, Manchester.

Rev. R. Lovett, Religious Tract Society, 56, Paternoster Row, E.C.

D. G. Lyon, Petersteinweg, 51, III, Leipzig.

The following Honorary Members were elected :—

Dr. Conrad Leemans, Keeper of the Egyptian Museum, Leyden.

Ernesto Schiaperelli, Keeper of the Egyptian Museum, Florence.

George Perrot, Paris.

SECRETARY'S REPORT

FOR THE YEAR 1882.

SINCE the last Anniversary Meeting, held here on the 10th January, 1881, death has taken away from us some most valued Members ; and it was with especial regret that the loss of the following was announced :—

The Right Hon. The Earl of Harrowby, K.G., D.C.L., &c., &c., *Vice-President.*

François Joseph Chabas, *Honorary Member.*

Henry Adrien Prevost de Longperier, *Honorary Member.*

Dr. T. R. Robinson, F.R.S.

Mr. Jonathan Peckover, F.S.A., &c.

The number of Members on the Roll was announced in the Report for the year 1881 as being 625. During the past year there has been no falling off in the strength of the Society.

The Roll now comprises :—

Ordinary Members	....	....	....	....	574
Public Libraries	....	....	....	....	34
					608
Foreign Honorary Members	....	....	....		33
TOTAL	....				641

Although, in conformity with the Bye Law, the number of meetings held during the past Session has been somewhat diminished, the papers read before the Society have not been of less interest than heretofore. The excavations carried on in those countries, the history and archæology of which particularly interest the Society, have, although interfered with by various troubles, produced many valuable results. It cannot but be a subject of universal regret that the recent operations in Egypt have resulted in absolutely nothing as regards the antiquities of that country ; more particularly when we remember the advantage taken by others of a like opportunity in past years.

The fresh field of enquiry, Asia Minor, or as a large portion of it has been named, "The Land of the Hittites," has still further been opened up, other sculptures and fragments of inscriptions have been sent to the British Museum, some of them doubtless adding more or less to the completeness

of those already preserved in the national collection. At last the "Statue Inscription" from Jerabis has arrived, and other pieces are, I believe, on their way to England. The discovery of inscriptions and carvings upon the face of the rocks, similar to those at Eyuk and Boghaz Keui, has been announced; and in the *Revue Archéologique* will shortly be published by M. George Perrot, a number of clay seals similar to those discovered at Nineveh by Sir Henry Layard, so far back as 1851. Thus it will be seen that little by little our knowledge of this class of documents slowly increases: and it will be the endeavour of the Council of the Society to place its Members in possession, as far as possible, of the results of the new discoveries.

To Professor Sayce, who has with others attempted the decipherment of the "Hittite" characters, we are indebted for having communicated the results of his enquiry; and in a paper read before the Society at the closing meeting of the Session 1881-82, he presented a classification of the characters into groups, and by comparison attempted to arrive at their value and explanation. Belonging to the same great division of Asia, may be classed the two cuneiform tablets supposed to come from Cappadocia, brought under the notice of the Society by Mr. Theo. G. Pinches, the text of which, with his remarks, will be found in the last volume of the *Proceedings*. A note on the same subject from the pen of Professor Sachau was printed in the same volume.

Mr. le Page Renouf has dealt with questions of the Egyptian belief, in a paper entitled Egyptian Mythology, Mist and Cloud, explained some very interesting examples of the early belief based upon the observation of natural phenomena. Again, in a communication printed in the *Proceedings* of February, he dealt in an exhaustive manner with the values of various groups of hieroglyphic characters. Mr. W. Flinders Petrie submitted the results of his examination of the pottery and implements collected by himself at Giseh and the neighbourhood, between December, 1880, and June, 1881. Mr. L. Lund explained in a paper entitled The Epoch of Joseph: Amenhotep IV as the Pharaoh of the Famine, his theory as to the identification of that monarch. Two communications bearing on the ancient history of Egypt must be mentioned, that of Professor Lieblein, on the Phœnicians in Egypt, and that by Mr. J. Cope-Whitehouse, in which, in a paper printed in the *Proceedings*, he illustrated and explained the results of his explorations carried on for several years in the desert near the Fayoum, as to the probable real site and extent of Lake Moeris.

The papers on Assyrian antiquities and history read before the Society have not been behind their predecessors in interest. In the communication On the Birds of the Assyrian Records and Monuments,

the Rev. W. Houghton has collected as far as possible all that is known on this interesting subject of ancient natural history. This paper will be printed in a future part of the *Transactions*, with a number of illustrations, embracing all the different types of birds as they are represented on the Assyrian *bas-reliefs*; and will thus add to the series of papers on similiar subjects for which the Society has been indebted to Mr. Houghton. Mr. Bertin, in *The Rules of Life among the Ancient Akkadians*, dealt with a subject too much neglected by Assyrian scholars, and presented to the Society some new facts in this department of study.

A future volume of the *Transactions* will contain, together with the papers mentioned above, the observations by Mr. Pinches upon the calendars of the ancient Babylonians now in the British Museum, as well as some of the most interesting communications for which the Society was indebted to him during the previous Session of 1880-81.

In the department of Hebrew Antiquities, the Rev. A. Löwy, in dealing with the *Notices of Glass in Ancient Jewish Records*, did much towards elucidating a subject of which but little is known.

Among other papers read during the present Session there will be printed, with *fac-similes* of the documents, those of M. Eugène Revillout, On a Demotic Papyrus containing the Malediction of an Egyptian Mother on her son embracing Christianity, and Two Demotic Documents of the Reign of Darius, referring to a marriage contract.

Since the last Report was presented to the Society, the long delayed third part of Volume VII has been issued to the Members. This delay enabled me to place before the Members the series of copies of "Hittite" Inscriptions, and it is hoped that the facilities afforded thereby will lead students to the discovery of the key to their decipherment.

The greater portion of the first part of Vol. VIII is in type, and many of the illustrations are ready. It will contain, with other papers read before the Society, that by the President, describing an Egyptian tablet of the period of Amenophis III, of the XVIIIth Dynasty, made for the twin brothers Har and Suti, who occupied the distinguished rank of "Superintendents of Works," or architects, and were attached to the construction of the Shrine and Temple of Amen, of that part of Thebes called Southern Ap, supposed to be Karnak. The paper by Mr. Le Page Renouf, on Egyptian Mythology, Mist and Cloud, already referred to as having been read during the past year; the communication by the Rev. W. Houghton, on *The Birds of the Assyrian Records and Monuments* mentioned above. The description by Mr. Theo. G. Pinches of the

discoveries made by Mr. Rassam at Abou-habba, read before the Society in June, 1881, and embracing the results of a further examination of the documents ; that by Mr. Bertin, also referred to above, on the Rules of Life among the Ancient Akkadians, &c., &c.

It is to be noticed with satisfaction that the continually increasing bulk of the *Proceedings* seems to point to the realisation of the hope expressed in the Report submitted to the Society last year, "that they might form a convenient and permanent record of discoveries and points of interest to the Members." The Council venture to hope that as time goes on, the many friends who have contributed by their communications to add to the value of this portion of the publications, will continue, with the aid of other supporters, to help towards the realisation of the hope that at no very distant period your *Proceedings* will become a veritable "Journal of Biblical Archæology." Not a little has already been done towards this object ; and taking the letters already published in the order in which they were printed during the last year, the Society is indebted for the following :—Professor A. H. Sayce, The Newly Discovered Cuneiform Inscriptions on the Nahr-el-Kelb ; Mr. Theo. G. Pinches, Cappadocian Tablets in the British Museum and the Louvre, to which Professor Sayce and Mr. Geo. Bertin added notes ; Remarks by Mr. Theo. G. Pinches on the Cappadocian Tablet preserved in the Bibliothèque Nationale at Paris ; further remarks by Professor Sayce on The Cuneiform Inscription on the Nahr-el-Kelb ; Mr. F. W. Eastlake, Uruku *versus* Sišku ; Professor W. Wright, LL.D., on Three Gems bearing Phœnician Inscriptions ; Mr. P. Le Page Renouf, Wrong Values commonly assigned to Hieroglyphic Groups ; Professor William Wright, LL.D., Remarks on the Siloam Inscription ; Mr. A. L. Frothingham, jun., Hebrew Inscriptions in Mosaic of the Fifth Century in the Tomb of the Empress Galla Placidia, Ravenna ; Professor T. Hayter Lewis, Notes on Tel-el-Yahoudeh ; Rev. Robert Gwynne, Note on the Mosaic of the Mausoleum of Galla Placidia at Ravenna ; Professor A. H. Sayce, Notes on the Assyrian Numerals ; Professor Lieblein, The Phœnicians in Egypt ; Mr. Theo. G. Pinches, The Akkadian Numerals ; Professor Edward Sachau, The Cappadocian Cuneiform Inscriptions. To these may be added the two long and interesting communications closing the volume, The Coptic Inscriptions of Beni-Hassan and Deir-el-Mendineh, by Professor Sayce ; and that of Mr. F. Cope-Whitehouse, Lake Moeris and recent Explorations in the Desert of the Fayoum, already referred to.

A few words may well be added about the publications of the Society not connected with the funds at the disposal of the Council. Of the Reproduction of the Bronze Ornaments of the Gates of the Temple at Balawat, Part IV has been issued to Subscribers, and of the completing portion (Part V), nearly the whole of the descriptive text by Mr. Pinches

is in the hands of the printer. As the whole of the plates are ready, I hope that in the early part of this year the work will be finished and delivered to the subscribers. The encouragement this effort has received will doubtless induce a continuation of the series.

Another work has already been undertaken : Mr. Theo. G. Pinches having with great care himself copied a large number of texts in the Babylonian Cuneiform writing, they have been reproduced direct from his copies, thus insuring as much accuracy as possible. This work, of which the first part has already been published, and which is only issued to Subscribers, is intended to be completed in three parts.

The Council have with pleasure at each Meeting recorded the number of valuable donations made to the Library of the Society, and they have as occasion offered purchased, out of the ordinary funds, many volumes necessary for the use of the Members. In order, however, to complete the collections already made, many works are still wanting, and it is sincerely to be hoped that Members will, by presenting them, add to the completeness of the Library, and place them within the reach of those who may have few other opportunities of consulting them.

The balance of the fund subscribed for the alteration and extension of the Library, remaining in the hands of the Council at the commencement of 1882, was £5 16s. 3*d.*, of which £4 10s. 0*d.* has been expended during the past year, leaving a balance of £1 6s. 3*d.*, to which further subscriptions may be added. These amounts will be found included in the statement of receipts and expenditure.

The audited balance sheet annexed shows that the funds available for the year 1882 have been £687 1s. 0*d.*, and the expenditure in the like period, £514 15s. 11*d.*

The balance brought forward from 1881 having been £159 6s. 7*d.*, the balance carried forward to the current year 1883 is £172 5s. 1*d.*, which, less one quarter's rent £25 owing for 1882, leaves the amount £147 5s. 1*d.*, available to defray the cost of Vol. VIII, Part 1.

A vote of thanks to the President for his valuable services to the Society was moved by Canon Beechey, and seconded by the Rev. A. Löwy, to which the President replied.

SOCIETY OF BIBLICAL ARCHÆOLOGY.

STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDED DECEMBER 31ST, 1882.

1883.	Dr.	£	s.	d.	Cr.	£	s.	d.
Jan. 1.	To Balance in hand ...	...	...	...	By Rent ...	...	...	91 0 0
	" " Library Account...	...	...	...	" Printing Transactions, Proceedings, &c. ...	...	...	157 16 6
		...	...	...	" Secretary's Expenses ...	...	...	125 0 0
	" Subscriptions for 1882 ...	366	18	6	" Official Auditor's Fee ...	...	...	1 11 6
	" Arrears from former years ...	47	11	4	" Postage of Transactions, &c. ...	...	...	19 13 9
	" In advance, 1883 ...	15	15	0	" Housekeeper and Sundries ...	...	...	4 17 11
		...	...	...	" Furniture ...	...	...	6 19 0
	" Life Composition ...	...	...	...	" Books and Bookbinding ...	...	...	25 3 8
		...	...	...	" Books bought from the Library Account ...	...	...	4 10 0
	" Sales of Transactions ...	...	...	...	" Fire Insurance ...	...	...	2 4 6
	" Dividends, 1 year, on £108 1s. 1d. ...	...	...	...	" Engraving, Drawing, &c. ...	...	...	44 12 7
	" New Three per Cents. ...	...	...	...	" Stationery, Advertising, &c. ...	...	...	1 7 6
		...	...	...	" Investment of Life Composition in New Three per Cents. ...	...	...	15 15 0
		...	...	...	" Subscription "Persepolis," Part I ...	...	...	10 0 0
		...	...	...	" Subscriptions returned ...	...	...	4 4 0
		...	...	...	" Balance carried forward to 1883 ...	...	...	172 5 1
		...	...	...				<u>£687 1 0</u>

LIABILITIES.

Rent, One Quarter, for 1882.
 Printing, Rent, and Current Expenses, accruing for 1883.
 Printing Vol. VIII, Part I.

ASSETS.

WILLIAM H. WHITE.

Subscriptions still outstanding for 1882.

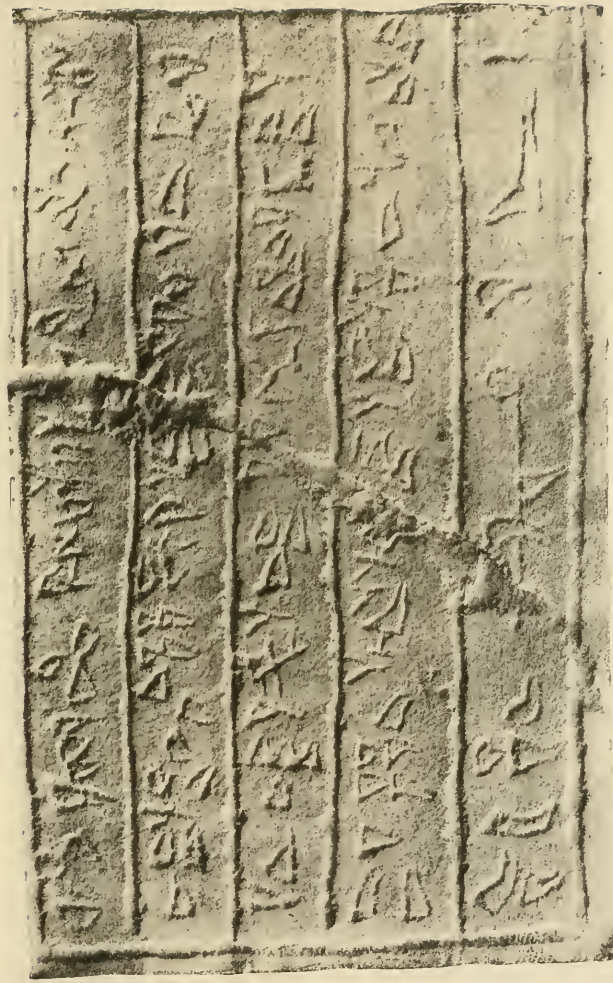
Library Furniture and Effects at 11, Hart Street.

The Transactions in stock.

Reserve Fund in New Three per Cent. Annuities, £123 15s. 1d.

11, HART STREET, BLOOMSBURY, W.C., January 6th, 1883.

W. HARRY RYLANDS, Sec.



Cuneiform Inscription at Kaisariyeh.

The following Officers and Council for the current year were submitted for election :—

COUNCIL 1883.

President.

S. BIRCH, D.C.L., LL.D., F.S.A., &c.

Vice-Presidents.

REV. FREDERICK CHARLES COOK, M.A., Canon of Exeter.
 REV. GEORGE CURREY, D.D., Master of the Charterhouse.
 SIR HARDINGE STANLEY GIFFARD, M.P., Q.C., &c.
 THE RIGHT HON. W. E. GLADSTONE, M.P., D.C.L., &c.
 THE RIGHT REV. J. B. LIGHTFOOT, D.D., &c., Bishop of Durham.
 WALTER MORRISON.
 CHARLES T. NEWTON, C.B., D.C.L.
 SIR CHARLES NICHOLSON, BART., D.C.L., M.D.
 REV. GEORGE RAWLINSON, D.D., Canon of Canterbury.
 SIR HENRY C. RAWLINSON, K.C.B., D.C.L., F.R.S., &c.
 VERY REV. ROBERT PAYNE SMITH, Dean of Canterbury.
 SIR ERASMUS WILSON, LL.D., F.R.S.

Council.

ROBERT BAGSTER.	REV. ALBERT LÖWY.
WILLIAM BEAMONT.	REV. S. S. LEWIS, F.S.A., &c.
WALTER BESANT, M.A.	F. D. MOCATTA.
REV. CHARLES JAMES BALL, M.A.	J. MANSHIP NORMAN, M.A.
REV. CANON BEECHEY, M.A.	ALEXANDER PECKOVER.
ARTHUR CATES.	F. G. HILTON PRICE, F.S.A.
THOMAS CHRISTY, F.L.S.	P. LE PAGE RENOUF.
ROBERT CUST, F.R.A.S.	VILLIERS STUART, M.P.
CHARLES HARRISON, F.S.A.	COLONEL WARREN, R.E.
	REV. W. WRIGHT, D.D.

Honorary Treasurer.

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Hon. Secretary for Foreign Correspondence.

REV. A. H. SAYCE, M.A.

Honorary Librarian.

WILLIAM SIMPSON, F.R.G.S.

The following communication was read by the Secretary :—

DEAR MR. RYLANDS,

I hope soon to send you a paper on the Ancient Geography of Northern Syria. Meanwhile, I may be allowed to submit to the Society of Biblical Archæology a few notes which may draw attention to some spots that seem most likely to reward the pains of the explorer.

The Karnak list of Northern Syria (Mariette, *Karnak*, No. 120–350) has just received some valuable corrections from M. Golenischeff (*Zeit.*, 1882, 145). It is now clear that this roll of names contains materials as valuable for the land of the Hittites as the first list, separately published by Mariette, has supplied to the geographer of Palestine.

A list of Seti I, and scattered notices in the records of the XVIIIth and XIXth Dynasties, are available for comparative study.

On the other hand, almost all that is known from Assyrian sources is condensed in the very valuable work of Dr. Frederick Delitzsch, *Wo lag das Paradies?* and the general outline is sketched by Professor Sayce (*Trans. Soc. Bib. Arch.*, VII, Part II). In the *Quarterly Statement* of the Palestine Exploration Fund, Mr. Boscawen has given some interesting material (1881, 224); and I need not refer to the important report of Captain Conder, R.E., on the Orontes Valley (1881, 161), except for the purpose of urging the importance of a careful exploration of the region surrounding the Lake of Homs. I have made much use of Rey's Map (*Carte de la Montagne des Ansariés*), and have found important information in a large map published by Arrowsmith in 1823. To these I refer as "Rey" and "Arrowsmith."

It is interesting to remember that nine or ten centuries elapsed between the conquests of Thothmes III from the Nile and those of Assurbanipal from the Tigris.

At present I only wish to show how far the Egyptian and the Assyrian records cover the same ground; how well identified many names are; how hopeful is the task of exploration in the field; how thickly peopled was this region seventeen centuries before the Christian era, and consequently how rich will be the reward to be gained by judicious and prompt examination of these city-ruins.

Now, if we run our eyes down the Karnak list to which I am referring, we find such names as :—

- 121. Aï. (?) *Kefr Aya* (Rey), south of Homs.
- 122. AMATU, Assyrian *Amatu*, Hamath (Del., 275).
- 125. Thermanna, west-south-west of Aleppo. (?) Tûrmanin (Rey).
- 126. Rekabâ. (?) Rehab, close to Tûrmanin (Rey).
- 127. TUNIPA (*cf.* Assyrian *Tunupe* (Sayce). Lenormant identifies Tunep with Apamea ad Orontem (*Hist. Anc.*, 1882, 236), near Kulât el Mudik (Porter, 582), north of Hamath. Tunep was a well-known point in Egyptian campaigns.
- 130. Tsareb (*cf.* Sarbûa, Del., 277).
- 132. Nii. "Possibly a town of the lands situate between the Orontes and the Khabour," says M. Maspero (*Zeit.*, 1879, 58), and M. Lenormant places it above Pethor, on the Euphrates, in the position of Karkemish, which was called *Ninus vetus*. Ni is mentioned in the inscription of Amonemheb in connection with the land of *Sentsar*, viz., of the Sajûr (Assyrian *Sagura*, *Saguri*). I find the name *Samgour* in Arrowsmith's map, and it seems as if *n* had fallen out. Compare the personal name of *Sangar*, king of Karkemish.
- 141. Bursu, (?) Assyrian *Bisru*. Tell Beshar, on the way up the Sajûr Valley.

Then we must pass a good many names, but in

- 189. Nireb, perhaps we have *Nerab*, south-west of Aleppo (Rey); and in
- 190. Thereb, *Tereb*, very near, also south-west of Aleppo (Rey).
- 196. Niashepa. (?) *Nizib*, on the way from the Euphrates to Aintab.
- 197. Ta-tseker. *Cf.* *Tchukur Ova*, south of Merash, "the great Cilician plain."
- 201. Natuba. (?) *Aintab*.
- 205. Tuaub = *Tôb*. (?) *Kefr Tôb*, north of Hamah.
- 208. AURMA. *Ὀρμα ὑψηλῶτος*. (Maspero.) *Killis*, on the road from Aintab to Aleppo.
- 252. SÛR. (?) *Sûr* on Euphrates (Suriyeh), capital of the Shuhîtes. Del., 279.
- 264. Akershaua, and 282. Mashaua.

These are very interesting names. "The mountain of Shaua" occurs among places in the Lebanon infested by roving Shasu in the Mohar's Travels, in connection with Pa-makar-pe (*cf.* No. 347),

Thamakûr, and Ta-makhir-pe (Chabas, *XIX Dynasty*, p. 110). And "the mountain Sauê," besides "the mountain Saû," are found among names of the Lebanon in Assyrian annals. Del. 277.)

We remember how the Shasu spies deceived Râmeses at Kadesh on Orontes, and it is worth while to consider whether the "*Saûru* of the tribes of Shasu," devastated by Râmeses III (explained by Chabas, and by Brugsch (*Histoire*, I, 146) as Seir in Edom), may not rather be found at the northern descents of the Lebanon, where Burton describes the *Sha'arah* as covered with brushwood and trees, and "generally infested by robbers." (*Unexp. Syria*, I, 68, 69.) This is the very word; and the fellow-captives of the Shasu chieftain in this campaign would be the Hittite, the Amorite, &c., from this northern region, whom we find with him on the walls of Medinet Habû. (Rosellini, M.R., No. cxliii.) I do not think Dr. Haigh right in identifying the "mountain of Shaua" of the Mohar with "*Shaibeh* in the Anti-Lebanon range, sixteen miles north of Helbon." (*Zeit.*, 1879, 55.) Perhaps the name may yet be recovered.

- 270. As read with certainty by M. Golenischeff, is KARKAMASHA, Karkemish, attacked in the fourth campaign of Thothmes; and
- 280. PETHRI seems to be Assy. *Pitru*, Pethor, the home of Bala'am, at the junction of the Sajûr with the Euphrates.
- 311. KHALEBU. *Aleppo*, which had a Sutekh.
- 313. Aurma. See 208.
- 314. Samâarua. (?) *Shomariyeh*, near the lake of Kadesh. Compare proper name of the chieftain Samarsa in the league against Râmeses II.
- 316. Pureth. *Purât* is the name of the Euphrates.
- 317. Saresu. This place had a Sutekh. Cf. *Sirasu*, king of the Singuraia (Sayce), also *Sarsu* (Assy.), Del., 102.
- 322. Thinnûr. Cf. 'Ain et *Tannûr*, above the lake of Kadesh.
- 333. Iurima. Cf. *Urima*, on the Euphrates, above Biredjik (*Oroum*, Rey).
- 346. Ama * u. (?) Amaru. The Amorites.
- 347. Thamakûr. Cf. Tamakhirpe and Pamakûr, above.

The general position of the places enrolled in this list is well-marked by the prominent names. We may well call it the roll of Northern Syria, and it is certain that among the names still obscure many are likely to emerge into light on a worthy exploration of the

Hittite country. Let us remember that every name in this list truly identified indicates a place known to the Egyptian armies fifteen centuries before Christ. Hoping to treat this subject at greater length, I will pass on to some other sources of information, both Egyptian and Assyrian.

I will now notice the places which seem best identified on the routes across the Euphrates westward.

I. The way to Cilicia. (M. Maspero reads Karnak 140 *Khalukkha*, and suggests Cilicia. Assy. *Khilakku*) Passing Nezib (? Eg. *Niashapa*), and Dolikhé in Commagéné (Assyr. *Kummukh*)? Eg. *Thalekh*), which may have stood where Aintab is at present, the important and ancient town of Mar'ash is reached, which seems to me to be the Markashi of Sargon, capital of the Gamgumai (Eg. *Gagama*). See Menant, *Rois d'Assyrie*, pp. 159, 169, 185, 186.

Another line was taken by Shalmaneser II, in his 11th year (Ep. Can., 111). After destroying the cities belonging to Karkemish and to Arné, he made a wide circuit to the slopes of Amanus (Assyr. *Khamanu*). Then, crossing a mountain called Yaraku whose name is perhaps found in the river *Yagra*, west of the *Afrin* (Assyr. *Abriê*), which is marked by Arrowsmith, he invaded the land of Khavvat (*i.e.*, of the Khivvi or "Hivites," Del.), and took Ashtamaku, an important capital, which surely must be the "*Stommak*" of Arrowsmith's map (between *Edlip* and *Richa*). This identification seems to me to give a fixed point of great interest. Another important place is Azaz (Assyr. *Khazazu*), on the way from Antioch to the Euphrates, represented on the bronze gates from Balawat. In this region also are the two great town of antiquity, Arpad (*Tel Erfad*), and, quite near to it, *Kullanhou* (Rey), which seems to be the Kullani of Assyrian records and the Calno of Amos, vi, 2, Isaiah, x, 9 (see Cheyne, Isaiah, 2nd ed., I, 70), on the way from Karkemish to Hamath. This must also be the *Kullania* of an Assyrian contract tablet given by Mr. Pinches. (*Proc. Soc. Bib. Arch.*, 1881, 13.) Four out of the five towns mentioned lie in the land of the Patinians, of which Khazazu (*Azas*) was the capital. Dâna must surely be the present *Dana*, west-north-west of Aleppo; Kullania, *Kullanhou*; Arpada, *Tell Erfad*, some six miles from *Kullanhou*; and Isana may well be a place eleven or twelve miles west-south-west of Aleppo, marked by Arrowsmith as *Essoyn*. Professor Sachau suggests Tell Isan, between Aleppo and Birejik. (*Proc. Soc. Bib. Arch.*, Session 1881-82, p. 117.)

Perhaps Karnê may be found in the same region. Or may it be the ancient coast town of Karne (now Karnûn), north of *Tartûs* (?) (Maspero, *Hist. Anc.*, 191, Porter, 556). And may the "horses of Kusaâ" have been imported by way of Karne, perhaps from Egypt?

In the territory of the Khavvat, of which Hamath (Assyr. *Amatu*) was the capital, Shalmaneser II, who had marched by way of Aleppo, took Adiennu, (?) *el Djineh* (Rey) south-west of Aleppo) Barga, (?) *el Bâra*, where are most remarkable ruins (Porter, 580), and Argana, the capital of Irkhulena, whose palace was burnt. Can Argana be *Arjûn*, south of the lake of Kadesh?

Near Arjûn is the great earthwork of *S'finet Nûh*, "a great platform of earth some 300 yards square, with small mounds at the four angles, as if representing the remains of towers, surrounded with a ditch 40 feet deep and wide. The direction of the sides is about north-east and south-west. An ancient road runs northward a little to the west." This is Captain Conder's description (*Palestine Exploration Fund Quarterly Statement*, 1881, 169). Arjûn is close to *Tell Neby Mendeh*, the site of Laodicea ad Libanum, where the name Kades is now found. Wherever Argana is to be found, it would seem that the field of the great battle of Karkar must be near, and the Orontes to the west of it, and Kilzau, to which place the battle raged.

The river must, one would think, have been narrow there, if Shalmaneser is rightly understood to say of his enemies, "with their bodies over the Orontes a bridge I made." Ep. Canon, 108.

I will leave off by the Lake of Kadesh, on which the great southern capital of the Hittites should be recovered. And surely among the selection of names here recounted, we have considerable material already ascertained for the guidance of the explorer in the "Land of the Hittites."

Believe me, yours sincerely,

HENRY GEORGE TOMKINS.

Park Lodge, Weston-super-Mare,

December 30, 1882.

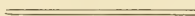
Thanks were returned for this communication.

Remarks were added by Rev. A. Löwy, Canon Beechey, Rev. W. Wright, D.D., and the President.

The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, February 6th, 1883, at 8 p.m., when the following papers will be read :—

By THEO. G. PINCHES :—“ Babylonian Tablets referring to House-holding.”

By Dr. BIRCH :—“ Remarks on an Egyptian Tablet, &c.”



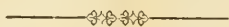
NOTE.—Members are reminded that their Subscriptions become due on January 1st, and should be sent to the Treasurer, B. T. BOSANQUET, ESQ., 73, Lombard Street, London, E.C.

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

THIRTEENTH SESSION, 1882-83.

Fourth Meeting, 6th February, 1883.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.



The following Presents were announced, and thanks ordered to be returned to the Donors:—

From the Royal Society:—The Proceedings. Vol. XXXIV. No. 222. 8vo. London. 1883.

From the Royal Geographical Society:—The Proceedings and Monthly Record of Geography. Vol. V. No. 2. 8vo. February, 1883.

From the Royal Institute of British Architects:—The Proceedings. Session 1882-83. Nos. 6 and 7. 4to. London. 1882.

From the Royal Asiatic Society:—The Journal. New Series. Vol. XV. Part 1. 8vo. January, 1883. London.

From the Royal Archæological Institute:—The Archæological Journal. Vol. XXXIX. No. 156. 8vo. London. 1882.

From the American Philological Association:—The Transactions. Vol. XIII. 1882. 8vo. Cambridge, U.S.A.

From the Author:—*Empreintes de Cachets Assyro-Chaldéens Relevées au Musée Britannique, classées et expliquées par M. J. Menant.* 8vo. Paris. 1882.

[No. xxxvi.]

Extrait des Archives des Missions scientifiques et littéraires.
Troisième série. Tome neuvième.

From the Author:—Lake Moeris: from recent explorations in the Moeris Basin and the Wadi Fadhi. By F. Cope Whitehouse, M.A., etc. 8vo. New York. 1883.

Bulletin of the American Geographical Society, 1882. No. 2.
From the Author:—The Greek New Testament, as published in America. By Isaac H. Hall, LL.B., Ph.D.

Extract from the Transactions of the American Philological Association, 1882.

From the Editor, Rev. Stephen D. Peet:—The American Antiquarian and Oriental Journal. Vol. V. No. 1. January, 1883. 8vo. Chicago.

From the Author:—I Testamenti di Girolamo Cardano. By A. Bertolotti. 8vo. Milano. 1882.

From Alexander Peckover:—The Five Great Monarchies of the Ancient Eastern World, or the History, Geography, and Antiquities of Chaldæa, Assyria, Babylon, Media, and Persia. By George Rawlinson, M.A. Second edition. 3 vols. London. 8vo. 1871.

The following have been purchased by the Council for the Library of the Society:—

Alphabetisches Verzeichniss der Assyrischen und Akkadischen Wörter im zweiten Bande der "Cuneiform Inscriptions of Western Asia," &c., &c. Von J. N. Strassmaier, S.J. Parts 1 and 2. 4to. Leipzig. 1882-83.

Tentamen Palaeographiae. Assyrio-Persicae, &c., &c. Auctore D. Anton. August. Henric. Lichtenstein. 4to. Helmstadii. 1803.

Mémoires de la Société Royale des Antiquaires du Nord. 1844, 1845-47. 8vo. Copenhagen. (Two parts.)

Contains Paper by N. L. Westergaard, on the deciphering of the second Achæmenian or Median species of arrow-headed writing.

Johannis Nicolai, Antiquitatum Professoris, Tractatus de Synedrio Ægyptorum, Illorumque Legibus insignioribus, &c., &c. 8vo. Lugduni Batavorum. 1706.

The Gold Mines of Midian and the ruined Midianite Cities. A Fortnight's Tour in North-Western Arabia. By Richard F. Burton. 8vo. London. 1878.

The following were nominated for election at the next meeting, March 6th :—

Professor Henry Drisler, LL.D., Columbia College, New York.

John Gilmore, 41, Pembroke Road, Dublin.

Edwin Lawrence, LL.B., B.A., King's Ride, Ascot, Berks, and
10, Kensington Palace Gardens, W.

Rev. Donald Matheson, M.A., Roehampton.

Rev. Bouchier Wrey Savile, M.A., Shillingford Rectory, Exeter.

To be added to the List of Subscribers :—

The University of St. Andrews (J. Maitland Anderson, Secretary
and Librarian), St. Andrews.

The following were elected as Members of the Society :—

William Godsell, Auditors' Department, India Office.

Gustave Masson, B.A., Harrow.

H. Morris, Eastcote House, St. John's Park, Blackheath.

Mrs. Symmons, 42, South Street, Greenwich.

Professor W. A. Stevens, Theological Seminary, Rochester, New
York, U.S.A.

Rev. Thos. Walker, M.A., St. Augustine's College, Canterbury.

The following Paper was read by Theo. G. Pinches, "On
Babylonian Tablets relating to House-Holding :"—

This paper was a translation and discussion of an interesting series of documents which had been found by the author among the collection of Egibi-tablets in the British Museum.

The series consists of four documents, of which two are duplicate. Each of the series, though belonging to one place, namely, Borsippa, reached the British Museum at various times, and through different channels. The first in chronological order, which is dated in the second year of Nabonidus, is in a most excellent state of preservation. This document refers to the buying of a house and land by a Syrian named Bin-Addu-natānu, and his wife, Būmanitu, a Babylonian lady. The transaction is entered into for them by a man named Ibā.

The essential part of the document is as follows :—

"Seven canes, 5 cubits, 8 fingers, a house, with territory, a plantation which is within Borsippa, which Dān-šum-iddin, son of Zirīa, son of Banāa, for 11½ mana of silver, for the price complete, has

delivered into the hands of Ibâ, son of Sillâ, son of the *Nagar*, by the authority of Bin-Addu-natânu, son of Addia, and Bunanitu his wife, daughter of Hariṣâ. He has taken possession of that house, and has paid the money of Bin-Addu-natânu and Bunanitu as the price of the house. The contract of Dîn-šum-iddina for the house and money is made; they have sealed the tablet of Dîn-šum-iddina with his name. He has given it to Bin-Addu-natânu and Bunanitu."

The names of six witnesses, two of whom are scribes, and have also impressed their seals on the document, follow this, and afterwards comes the date:—

"Babylon, Sebat 24th, second year of Nabonidus, king of Babylon."

The first name of the list of witnesses is that of Iddina-Marduk, son of Bašâ, son of Nûr-Sîn.

It was here noted that the scribe had been careful to state that Ibâ had bought the property by the authority of Bin-Addu-natânu. If he had not received this authorization from his employer, and the latter had afterwards refused to have the property, Ibâ would have been obliged, by Babylonian law, to keep and pay for it himself.

The next document in chronological order is dated in the fifth year of Nabonidus. It is an ordinary loan-tablet, about $2\frac{1}{4}$ inches long by an inch and a-half broad. The inscription records that the above-named Iddina-Marduk, who appeared as a witness to the former transaction, lends the sum of $2\frac{1}{2}$ mana $8\frac{1}{2}$ shekels of silver to Bin-Addu-natânu and Bunanitu, at the rate of one mana one shekel of silver interest. This document is dated at Borsippa.

The third tablet, of which there are two copies, neither being the original, is dated in the ninth year of Nabonidus. In this document, the woman Bunanitu, whose husband is now dead, makes a declaration before the judges, claiming the property which belonged to her late husband, to which she considered that she had some right, as she had been, to a great extent, instrumental in getting it, and had taken part in all the transactions relating thereto. The text of this document, which is much longer than the two already given, is as follows:—

"Bunanitu, daughter of Hariṣâ, said thus to the judges of Nabonidus, king of Babylon: 'Bin-Addu-natân, son of Nikbata,* had me to wife, taking three mana of silver as my dowry, and I bore to him one daughter. I and Bin-Addu-natân, my husband, traded with the money of my dowry, and we bought, for $9\frac{1}{3}$ mana of

* Variant, Nikmadu.

silver, with $2\frac{1}{2}$ mana of silver which (was borrowed) from Iddin-Marduk, son of Bašâ, son of Nûr-Sin, (and which) we added to the former sum, 8 canes of land, and a ruined house, the territory of a large property, which is within Borsippa. Together we made this transaction in the fourth year of Nabonidus, king of Babylon.

“‘Now my dowry (was) with Bin-Addu-natân, my husband. I asked (for it), and Bin-Addu-natân, in the kindness of his heart, sealed, and entrusted it to me for future days, the 8 canes of land, and that house, which is within Borsippa, and made it known on my tablet as follows: “ $2\frac{1}{2}$ mana of silver, which Bin-Addu-natân and Bunanit have taken from Iddin-Marduk, and have given as the price of that house. Together they have made the agreement.” He sealed this tablet, and wrote upon it the curse of the great gods.

“‘In the fifth year of Nabonidus, king of Babylon, I and Bin-Addu-natân, my husband, took Bin-Addu-amara to sonship, and wrote a tablet of his sonship, and made known that the dowry of my daughter Nubtâ was 2 mana 10 shekels of silver and the furniture of a house. Fate took my husband, and on account of this, Aḡabi-ilu, son of my father-in-law, laid claim upon the house and everything which he had sealed and entrusted to me, and upon Nabû-nûr-ili, whom we had bought, by the hands of Nabû-aḡi-iddin, for money. I have brought it before you. Make a decision.’

“The judges heard their words, they discussed the tablets and documents which Bunanitu had brought before them, and they did not make Aḡabi-ilu to have power over the house of Borsippa, which had been entrusted to Bunanitu instead of her dowry, over Nabû-nûr-ili, whom she and her husband had bought for silver, nor over anything of Bin-Addu-natân. Bunanitu and Bin-Addu-amara, by their tablets, possess (them). Iddin-Marduk takes the $2\frac{1}{2}$ mana of silver which had been given as the price of that house, and settles (the affair). Afterwards Bunanitu settles the $3\frac{1}{2}$ mana, her dowry, and besides her property she settles Nabû-nûr-ili (upon) Nubtâ, according to the agreement of her father.

“By the decision of this judgment.”

Here follow the names of six judges and two scribes, and then the date :

“Babylon, 26th Elul, ninth year of Nabonidus, king of Babylon.”

It will easily be seen that the above document is an action brought by the woman Bunanitu to recover the property which she and her husband had acquired, but to which Aḡabi-ilu, her husband's brother,

laid claim. Bin-Addu-natān, however, seems to have taken great care that his wife's name should be associated with every transaction, wishing that the property might go to her, in case of his dying, as he actually did, before her. The association of her name, with his, however, in all the transactions into which they entered, would probably not have availed in any way, but for the fact that part of the money with which they traded was her own; for it was enacted, according to Babylonian law, that on the death of the husband, the dowry of the wife returned to her, and to her children; and in the case where both husband and wife died without any issue, the dowry returned to the parents of the wife, from whom, in fact, it originally came. On this point the law was clear, and Aḳabi-ilu seems to have been nonsuited. At the time when this question was decided before the judges, Iddin-Marduk, the lender of the money which made up the price of the house at Borsippa, was repaid, seemingly by order of the judges, and provision was made for the dowry of Nubtā, the daughter of Bunanitu, who was to marry the man Bin-Addu-amara, who had been "taken to sonship."

Remarks were also made upon the discrepancies of dates, &c., in the declaration of Bunanitu and in the documents to which she there referred.

Several very interesting expressions and idioms occur in these texts, of which the following may be noticed:—

Ana aššūtu rašû, "to have as a wife" (literally, in Babylonian, "to have to wifehood.") 𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 *ana aššūtu iršānni*, "he had me to wifehood."

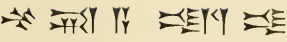
Ana mārūtu lēkû, "to take as a son" (or, rather, son-in-law). 𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 *ana mārūtu nilkāmma*, "we took (Bin-Addu-amara) to sonship."

Nudunna lēkû, "to take a dowry." 𒀭𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 *nudunna-a ilkê*, "he took my dowry."

Nadānu û maḥāru êpēšu, "to trade," lit., "to make to give and receive." 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 *nadānu û maḥāri ina êli kasap nudunnē-a nêpuš*, "giving and receiving with the money of my dowry we made."

Kanāku ša nin, "to seal anything."

Šudgulu pani, "to entrust to." 𒀭𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 𒀭𒀭 *nin ša kangu-ma* (for *kanku-ma*) *pania šudgulu*, "everything which he had sealed and entrusted to me."

Ābālu ša šīmti, "to take, of fate."  *muta-a šīmtum ūbil*, "fate took my husband" (= "my husband died").

Šakānu ša purussē, "to make a decision."  *purussē-šu šukna*, "make its decision!"

Bin-Addu-natān, "Ben-Hadad gave," and *Bin-Addu-amara*, "Ben-Hadad spoke." See also below upon the name Ben-Hadad.

Both copies of the last-given text have the interesting form  *iddidin*, for *ittidin* (for *ittadin*, *intadin*), and give an example of backward assimilation, partly, perhaps, on account of the influence of the assimilated *n*, but chiefly on account of the following *d*.

The following communication in connection with the above has been received from Mr. Theo. G. Pinches:—

UPON THE NAME BEN-HADAD.

The form and meaning of the name Ben-Hadad have been, since the discovery of the Assyrian form of the word, often discussed. A few remarks upon this name, and on the reading of the Assyrian names containing the groups  , which is the first element in the Assyrian form, may prove to be of interest.

The name Ben-Hadad, as it occurs in the Bible, is written בֶּן־חֲדָד, and is explained by Gesenius as "'son,' i.e., 'worshipper of Hadad,' or Adados, the greatest deity of the Syrians."

Three kings of Damascus bearing this name are mentioned in the Bible, and it is with the second of these, who reigned about 860 B.C., that the Assyrian king Shalmaneser II came into contact. The Kurkh Monolith and the Black Obelisk, referring to the campaign in question, give the name as     (  *-id-ri*) and     (  *-id-ri*), the only difference being, that the aspirate () is omitted in the latter.

Now the first two characters,  , form the well-known group expressing the name of the air-god, Rimmon, the pronunciation of which should be, according to the Hebrew, Ben. On turning, however, to the tablets containing the names of this god in the different tongues of the East in ancient times, we do not find this word at all, but we do find three words very much like the second element in the Hebrew form, namely: *Adad*, *Addu*, and *Da[du]*, and to the two last are added, in the second column of the list, the

characters 𐎶𐎵- 𐎶𐎵 *Mar-ki*, evidently intended to designate the land of Samaria, just as 𐎶𐎵- 𐎶𐎵𐎶𐎵 *Mar-tu-ki* stands for the South-west. The Assyrian form of the name Ben-Hadad should therefore be *Adad'idri*, *Addu'idri*, or *Dadu'idri*, but the element *Bin* is wanting.

More light, however, is thrown upon the name Ben-Hadad by the legal texts translated above, on account of their containing the two names which I have transcribed as *Bin-Addu-natān* and *Bin-Addu-amara*. The former is written 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵, 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 *Bin-Addu-natan*, 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵𐎶𐎵 *Bin-Addu-natanu*, and 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵𐎶𐎵 *Bin-Addu-natannu*, and the latter 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵𐎶𐎵 *Bin-Addu-amara* (var. *-amari*). Now 𐎶𐎵𐎶𐎵𐎶𐎵 and 𐎶𐎵 are well-known signs, meaning "son" in Babylonian (*ablu* or *aplu*), and although we do not meet with the rendering *binu* (Heb. בִּין) in Babylonian, yet on account of the word *bintu*, "daughter," we may safely infer that there was such a word in the language, which had become disused on account of the introduction of the Akkadian *ibila* (changed to *ablu* or *aplu*). It is clear, therefore, that in the words 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 (Bin-Addu), and their variant 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵, we have the name of a god who was called "the son of Addu" or "Hadad," the same with the Ben-Hadad of the Bible. The full form of the name of the Syrian king is therefore Ben-Hadad'idri ("the son of Rimmon, my glory"), in reproducing which the Assyrians left out the first element, and the Hebrews the last. Both Bin-Addu-natānu and Bin-Addu-amara are foreign names, and those who bore them must have been Samaritans who had long settled in Babylonia, and become naturalised.

The number of names by which the god Rimmon was known in Assyria and Babylonia was very great, and one list gives no less than forty-one words, all expressing this god. Of these, thirty-one seem to be Akkadian, three Samaritan, one Suïte, one Sugîte, two Elamite, one Kassite, and two Assyrian. The full number of his names was probably much greater.

Rimmon is generally regarded as the air-god, and this was indeed his principal title with the Akkadians, but with the Syrians and Assyrians he was usually regarded as the thunder-god. His principal names in Assyrian being 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵 *Rammānu*, 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 *Ramimu*, and 𐎶𐎵- 𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 *Ragimu*, the two former from the root רמם, in Assyrian "to thunder," and the last from רגם "to make a noise," "to cry." The first of these three

names (*Rammānu*) is, of course, identical with the רמון or רמן of the Bible, and comes from the same root.*

It follows, therefore, that in all royal names the characters 𐎶 𐎶𐎶, when they occur, are to be transcribed neither *Vul*, *Bin*, *Ramān*, nor *Meru*, but *Rammānu*, *Ramimu*, or *Ragimu*; the first being, on account of the Phœnician Rimmon, the most correct. The reading *Rammānu* has always been followed by the younger English school of Assyriology.

The most usual Akkadian name was *Mer*, which means simply "wind." In its reduplicate form, *Mermer*, "the south-wind," it is represented by the character 𐎶𐎶 repeated

four times, and arranged in the form of a cross, 𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶 as well as by the strange group 𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶 † This

group is evidently Babylonian, and the Assyrian scribe has written it exactly as it stood in the document which he had to copy. The Assyrian form would be 𐎶𐎶 𐎶𐎶, and it is not unlikely that the lower characters, 𐎶𐎶 𐎶𐎶 *murmur*, express the pronunciation. §

The Kassite names of this god were Ubriāš (which is probably

* The name of this god, coupled with a verb from the root רמם, is so constantly used, that it is difficult to see why the true form of the name had not been found out before. In many places we have such expressions as 𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶 *Rammānu irum*, "Rimmon thundered;" and the Flood-tablet, in the description of the coming of the storm, has the words 𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶 *Rammānu ina libbi-ša irtammama*, "Rimmon thunders in the midst of it and." A very interesting passage describing the terrors of this god (W.A.L., IV, 28, No. 2), says: "at his anger, at his power, at his roaring, 𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶 *ana RAMIMI-su*, at his *thundering*, the gods of heaven ascend to heaven, the gods of the earth descend to earth." Connected with the root רגם, "to cry out," "to demand," is the word 𐎶𐎶 𐎶𐎶 *targumanu*, "interpreter," "dragoman," the Arabic ترجمان, from ترجم. The Assyrian meaning and form of the root, in this case, evidently come, as in Arabic, from the Chaldee ܪܡܝܢܐ, Syriac ܪܡܝܢܐ.

† W.A.L., II, pl. 57, l. 76 and 77, where it is explained by 𐎶𐎶 𐎶𐎶 𐎶𐎶 𐎶𐎶 "the southern Rimmon." (The mutilated group is to be restored as above.) 𐎶𐎶 𐎶𐎶, which usually signifies the sun-god, here stands (as also in the Akkadian expression signifying Rimmon as "the inundator") for the god Rimmon.

‡ W.A.L., II, pl. 48, col. 1.

§ Perhaps even a gloss.

the same word as Buriāš, formed of *bur*, "lord," and *iāš*, "land;" in Assyrian *bēl mātātī*, "lord of the world") and Ġudġa.

NOTE.—A rather important fact connected with the character  may here be noted. This character, as is well known, is used as a prefix for the words expressing the cardinal points,    ,    ,    , and    , which are translated north, south, east, and west, respectively. The translation, however, is not quite correct. A small tablet, giving lists of signs, eclipses, &c., affecting the various countries, has the following:—

81-7-27, 22, paragraphs 4 and 5.

               
 Šāru šūtu māt Êlamti, šāru iltanu māt Akkadi,
The south is Elam, the north is Akkad,

              
 šāru šadû māt Su - edin u māt Gu - ti - [i]
the east is Su-edin and Gutî,

              
 šāru Aḥarru māt Mar - tu
the west is Phœnicia.

               
 Imneš māt Akkadi, šumēleš māt Êlamti, êleš
On the right is Akkad, on the left is Elam, above (in front)

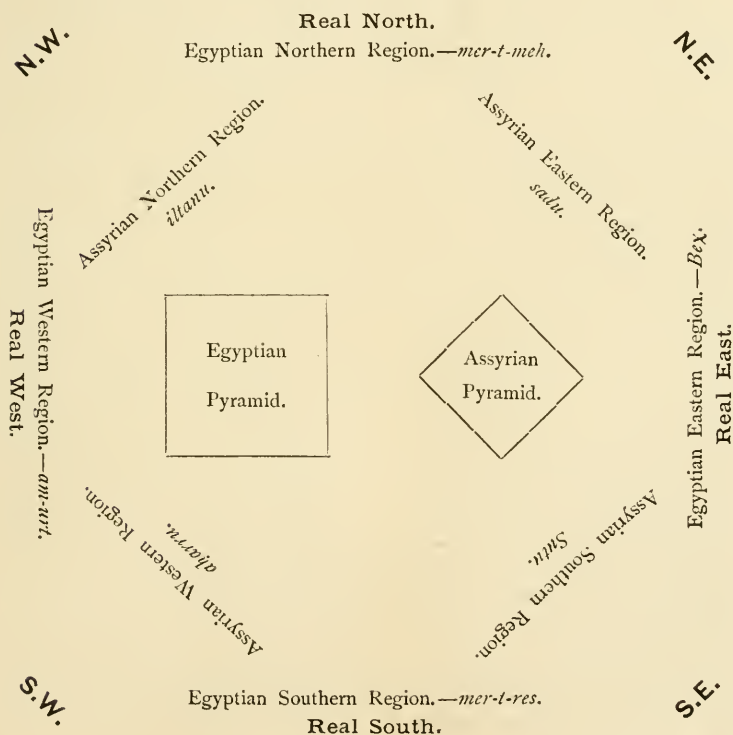
              
 māt Mar - tu ârkeš māt Su - edin u māt Gu - ti - i
is Phœnicia, behind is Su-edin and Gutî.

From the above it is clear, that Akkad and Elam are placed in opposition to each other, and that, as these countries lie, with regard to each other, north-west and south-east respectively, we must regard the north of the inscriptions as out north-west, and south as our south-east. Martu is therefore the country south-west of Mesopotamia, and Su-edin and Gutî north-east. Akkad is probably Armenia, and not the northern part of Babylonia.

In most ancient times the earth was probably regarded as square, with the sides towards the four points of the compass, but the want of a more definite determination making itself felt, the cardinal points were shifted to the points or angles of that square.

Mr. BERTIN.—The indications given by the text just quoted by Mr. Theo. G. Pinches are important, because they settle the difficult question of the difference in orientation between the Assyrian and Egyptian monuments. As is well known, the Egyptians oriented their monuments so that the sides faced the four points of the compass, but the Assyrians the corners. By the light of this new text we may now see that amongst those ancient nations there were no points of the compass in our modern acception of the term, but *cardinal regions*, North, South, East, and West. The central part of the Egyptian northern region, *mer-t-meh*, corresponded to our north, and extended therefore from N.E. to N.W.; the southern region, *mer-t-res*, from S.E. to S.W., &c. On the contrary, the Assyrians, copying the Akkadians, placed their cardinal regions the other way, their north, *iltanu*, corresponding to the side from North to West, and their West, to the side from West to South, &c.

The following diagram may give a clearer idea :—



The explanation so given by the text will be of the greatest help in the geographical and archæological researches of Assyriologists.

It may be added that the two systems of cardinal regions, so to say, originated no doubt from two different races, and their determination was due probably to the geographical position of the primitive home of each race.

It is important to mention that there was one temple, *E-sagil*, in Babylon, oriented like the Egyptian buildings, and one in Egypt, the step pyramid of Sakkara, oriented as the Assyrian temples. The former, the remains of which are now called *Babil* by the Arabs, was no doubt erected, or its foundations laid, before the Akkadian invasion, and the latter probably erected in Egypt under Assyrian or Semitic influence.

Remarks were added by Rev. A. Löwy, Rev. C. J. Ball, Mr. W. St. C. Boscawen, Mr. Pinches, and the President.

The President read some remarks on a board with an Hieratic inscription belonging to Mr. A. MacCullum.

The board with an hieratic inscription exhibited to the Society this evening contains a text, the duplicate of that upon a similar board exhibited by Rogers Bey at the Universal Exhibition in Paris in 1878, and published by M. Maspero in the "*Receuil des Travaux relatifs à la Philologie et l'Archeologie Égyptiennes et Assyriennes*," Vol. II, 1880, p. 13 and following, from a dissertation written in 1879, with a translation and commentary. It is now known that both these boards came from the Deir-el-Bahari at Thebes, the place of the great discovery of the royal mummies in 1881, and that these two boards were part of the funeral apparatus of a person not royal there interred—one that was published by M. Maspero of the Princess Nasikhonsu, daughter of the lady Thonthantahuti—and that exhibited to-night is for the same person. This board, which was obtained by the Duke of Hamilton while on a visit to Egypt, is now in the possession of Mr. MacCullum, who has kindly allowed it to be exhibited before the Society by Colonel Bravo. Like the other board, it is in a marvellous state of preservation, and their condition is so unusual, that the board of Rogers Bey excited the same suspicion in the mind of M. Maspero that it did in my own when I saw it, although a more favourable opinion of the authenticity of the board was entertained by the late Mr. C. W. Goodwin.

There is no doubt that the pit at the Deir-el-Bahari had been plundered for at least ten years, although suspicions were not aroused of a grand discovery of royal mummies till 1876, the secret having been kept by the Arabs, who had found that, to them, mine of wealth by the sale from time to time of its contents, which were gradually being dispersed amongst travellers and amateurs.

Unfortunately the board of Mr. MacCullum does not throw any additional light on that of Rogers Bey. Both contain an order from Amen Ra to the so-called sepulchral figures so familiar to you when made of blue porcelain, and of which thousands of a very beautiful bright blue porcelain have been found in the pit of the Deir-el-Bahari. The hieratic inscription, as translated by M. Maspero, says : "Ammon, king of the gods, that great god who was the first, I order that the responding sepulchral figures which have been made for Nasikhonsu, whose mother is Thonhantahuti, should make for Nasikhonsu, this daughter of Thonhantahuti, all the lamentations and prostrations, and all kinds of lamentations which the responding sepulchral figure knew how to make when they lament for a deceased individual, to bear him to the tomb that he should there become young again and commit no fault.

"When Ammon had said I will desire that they should do that to Nasikhonsu, this daughter of Thonhantahuti, Amen Ra, king of the gods and the very great god who was at the first, said : I order the responding sepulchral figures which have been made for Nasikhonsu to make all the lamentations which protect every perfect mummy, to do it for the protection of Nasikhonsu. I enjoin them against every year, every month, every decade, every day, every epagomenæ.

"Body of the writings which have been placed before Amen (lord) of the thrones of the earth, of the temple of Berber, the year 5, the 4th month of Shamu the summer, the 8th day.

"Says Amen (lord) of the thrones of the earth of the abode of Berber (Heliopolis). The great god in two writings which make faith in truth. All that which the founders will give for the responding figures which have been fabricated for Nasikhonsu, this daughter of Thonhantahuti, all the linen, bread, cakes, fishes, both those who will give them in kind, and also the founders who will load them with silver in place of things [it is therefore], all the reason why are made these responding sepulchral figures, and what they ought to do for a person to guide him, to advise him in his actions, all what is of any use is made to be done by the responding sepulchral figures for

Nasikhonsu, this daughter of Thonhantahuti, so that they may be good for her and make an excellent lament."

The difficulties about this text are, that the figures are not called only Ushabti or Ushab-ushab, as usual, but *taru-ushabti*, the meaning of the first word being obscure, and that the function they are called upon to perform is not the same as that of Ushabti, upon which are generally inserted or impressed the formula of the 6th chapter of the Ritual, entitled that of making the working *ushabti* of Hades, who are called upon to dig the ground, fill the furrows with water, and remove the sand away from the cultivated land. Their equipment also suggests their occupation, as they bear the square basket for holding seed or sand slung across their shoulders, and the hoe and pickaxe for the work they had to perform. Upon one figure has been found the formula of the 5th chapter of the Ritual entitled that of avoiding to work in the Hades. These figures are supposed to be as old as the XIth dynasty, and to have been continued till the time of Nectanebo, of the XXXth dynasty.

The translation of the hieratic text of the board appears to allude to the lamentations made by the figures, or the bearers and offerers of the figures, to the gods on behalf of the corpse or mummy, but lamentations were not the duty of the *ushabti*, neither can it be conceived to have been the case that fish, gold, silver, and linen were offered to them. Such were probably given to the *baba*, or 'moulders' of the figure, and those of Nasikhonsu found in the pit of the Deir-el-Bahari were modelled of blue porcelain. The disposition of sepulchral figures in the tombs is by no means uniform—sometimes they are found strewn on the floors, at others they have been deposited in boxes, but occasionally they are arranged set upright in the ground of the floor of the sepulchre, round the coffin, which they face, as if in the act of addressing the dead.

It has always appeared to me probable that these figures were the representatives of earlier human sacrifices made in prehistoric times at the graves of the deceased, and it will be remembered that the *gas* or departed 'spirits' were supposed to reside in the statues deposited in the serdabs or concealed niches of the walls of the *mastabas*, or old sepulchres of the IVth and Vth dynasties, so that the sepulchral figures may have been supposed, according to Egyptian mysticism, to have had its *ga*, or 'spirit,' which responded or answered to that of the deceased in the future state, an idea also common to the Chinese.

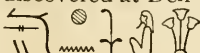
The date of these tablets is the 5th year of Pinotem II, or

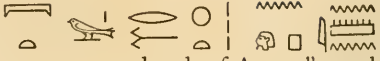
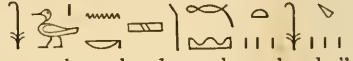
Psinaches, the same as that scrawled on the shrouds of the royal mummies, and indicating their removal to the Deir-el-Bahari, the first and earliest removal of the mummies of the earlier kings to the mummy pit of the high priests of Amen Ra at the Deir-el-Bahari. Such dates can only be royal ones, and have no reference to the priesthood of Amen Ra, no dates of this kind of eponymy having been found on Egyptian monuments. This was the date of the burial of Nasikhonsu.

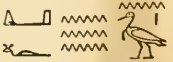
There is some difficulty about the parentage of Nasikhonsu ; on the tablets she is said to be the daughter of Thanhantahuti, but the name of her father is not given ; but on the stèles or tablets published by Naville, Bourant, and Maspero, a Nasikhonsu was the granddaughter of Mencheper-ra and Hesiemcheb, and daughter of Nasiken-tatu and Pinotem III. It is of course possible that this may be another Nasikhonsu, different from the lady named on the boards, but hardly probable. It cannot be considered that all the genealogy of this family is made out, for on the papyrus of Hantau at Cairo she is said to be the child of the scribe Nebseni, whose mummy, found at the Deir-el-Bahari, has hitherto been assigned to the XVIIIth dynasty. The date of the burial of Nasikhonsu, who Maspero connects with Pinotem II, by the priest of Amen, superintendent of the Treasury, Tetu-khonsaufan χ , is mentioned on a hieratic inscription traced on the side of the entrance of the tomb of the Deir-el-Bahari, and it must be this Nasikhonsu that is the one of the wooden tablets.

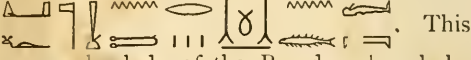
The recent memoir of Professor Lepsius, *Zeitschrift*, 1882, p. 103 and following, gives an attempt to set in order the succession of this dynasty, for which, however, some texts are still wanting. Amongst the monuments hitherto not published are perhaps a sepulchral vase of the queen Netem-mut in the British Museum, No. 929, and the papyrus of the queen Netem belonging to the Prince of Wales.

The objects of this period were clearly made at a period when the arts and literature of the Egyptians had fallen into great decay, and the writing exhibits great carelessness or ignorance on the part of the scribes ; so much so, that they would otherwise excite suspicions as to their authenticity.

Some rubbings were exhibited by Mr. MacCullum, from four sepulchral vases of alabaster, with wooden painted heads. The inscriptions showed that they had also been discovered at Deir-el-Bahari, and were part of the funereal apparatus of  Nasikhonsu,

who bore the following titles :  "chief or superintendent of the head of Amen," and , another title of uncertain meaning ; Nasikhonsu was also  *neter xent en xnum neb abt*, "priest of Chnumis, lord of Elephantine," and  "royal son or prince of Æthiopia, the northern land, southern lands." The formula on these vases is different to that usually found on sepulchral vases. On the first the genius Amset says that he gives the  *hotep*, or 'vegetables' off the altar Onnophris to the deceased. On the second genius Hapi "gives to that (the) soul of the deceased to go in and out of Hades" .

In the third Tuaumutef says that "he gives water to the soul" of the deceased,  an unusual application by Tuaumutef, although applied to the *khaibi*, or 'shade' of the dead.

The fourth genius, Kabhsenuf, "gives incense and clothes to the body" of the deceased . This Nasikhonsu is not the same as the lady of the Board, although he bears the same name. Lepsius, indeed, in his list of the XXIst dynasty, has given the name of Nasikhonsu, a prince, written in the same manner, and with the flower  usually used as the determinative of the names of females, but the monuments of this period are so anomalous that they may be true notwithstanding their suspicious appearance. With this Mr. MacCullum also exhibited a rubbing of the well-known scarabæus, with the account of the lion hunts of Amenophis III.

Thanks were returned for these communications.

The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, March 6th, 1883, at 8 p.m., when the following paper will be read :—

By H. RASSAM :—"Recent Discoveries of Ancient Babylonian Cities."

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

THIRTEENTH SESSION, 1882-83.

Fifth Meeting, 6th March, 1883.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.



The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Society of Antiquaries :—The Proceedings. Vol. VIII. No. 6. 16th December, 1880, to 23rd June, 1881. 8vo. London. 1883.

From the Royal Geographical Society :—The Proceedings and Monthly Record of Geography. Vol. V. No. 3. 8vo. March, 1883.

From the Royal Institute of British Architects :—The Proceedings. Session 1882-83. Nos. 8 and 9. 4to. London. 1882.

From the Geological Society :—The Quarterly Journal. Vol. XXXIX. No. 153. February, 1883. 8vo. London.

From the Royal Anthropological Institute :—The Journal. Vol. XII. No. 3. 8vo. London. 1883.

From the Author :—Le peuple et l'empire des Mèdes, jusqu'à la fin du règne de Cyaxare. Par A. Delattre, S.J. 4to. Bruxelles. 1883.

Extrait du tome XLV des *Mémoires couronnés et Mémoires des savants étrangers*, publiés par l'Académie royale des sciences, des lettres, et des beaux-arts de Belgique. 1883.

From the Author :—Un prétendu tombeau de Saint Luc à Éphèse restitué à la mémoire de Saint Antipas. Par Le P. A. Dutau, S.J. Paris. 8vo. 1883.

Extrait du *Contemporain*, 1st February, 1883.

From the Author :—Inscription historique de Pinodjem III, Grand Prêtre d'Ammon à Thèbes. Traduit et commentée par Édouard Naville. 4to. Paris. 1883.

From the Author :—The Identification of the Sculptured Tope at Sanchi. By William Simpson.

Reprinted from the Journal of the Royal Asiatic Society. Vol. XIV. Part 3.

From the Author :—The Buddhist Caves of Afghanistan.

Reprinted from the Journal of the Royal Asiatic Society. Vol. XIV. Part 3.

The following have been purchased by the Council for the Library of the Society :—

Early Christian Numismatics, and other Antiquarian Tracts. By C. W. King, M.A. London. 8vo. 1873.

Notes of a Naturalist in the Nile Valley and Malta, a narrative of exploration and research in connection with the Natural History, Geology, and Archæology of the Lower Nile and Maltese Islands. By Andrew Leith Adams, M.B. Edinburgh. 8vo. 1870.

The following were nominated for election at the next meeting, April 3rd :—

Professor Carl Hofmann, Graz, Austria.

Sir A. Henry Layard, G.C.B., &c., &c., 3, Savile Row, W.

Mrs. Morison Miller, 51, Lauriston-place, Edinburgh, and Morison House, Hetland, Lockerbie.

Rev. John P. Peters, Ph.D., Ninety-ninth Street, Tenth Avenue, New York City, U.S.A.

Edward David Price, F.G.S., Sydney House Collegiate School, Hounslow, W.

To be added to the List of Subscribers :—

L'Université Catholique de Lille, 56, Boulevard Vauban, Lille.

The following were elected as Members of the Society :—

Professor Henry Drisler, LL.D., Columbia College, New York.

John Gilmore, 41, Pembroke Road, Dublin.

Edwin Lawrence, LL.B., B.A., King's Ride, Ascot, Berks, and
19, Kensington Palace Gardens, W.

Rev. Donald Matheson, M.A., Roehampton.

Rev. Bouchier Wrey Savile, M.A., Shillingford Rectory, Exeter.

To be added to the List of Subscribers :—

The University of St. Andrew's (J. Maitland Anderson, Secretary
and Librarian), St. Andrews.

The following Paper was read by H. Rassam, "On Recent Discoveries of Ancient Babylonian Cities :"—

In this paper, after some preliminary remarks, Mr. Rassam detailed how, on visiting the mound Dair, where some fragments of bricks inscribed with cuneiform writing had been picked up, the site Aboo-habba was passed, and upon examination proved to be the remains of an old Babylonian city. With difficulty workmen were obtained, who after a few days' labour came across fragments of tablets, &c., and the wall of a chamber of the old city. Further excavations revealed an asphalt floor, a form of foundation hitherto unknown in the ancient remains of Assyria and Babylonia. On the floor being broken into and examined, there was found in the corner of the chamber an inscribed earthenware coffer, inside which was deposited a stone tablet covered with cuneiform writing, and having a representation of what has been identified with the shrine of the sun-god. Of this tablet Mr. Pinches gave an account on 7th June, 1881.

The mound Aboo-habba has been identified with Sippara, and some account was given of its situation on the grand canal of Babylonia, and the position of the buildings. Mr. Rassam was of opinion that Sippara of the Sun-god was divided into two distinct buildings, one

for religious purposes, and the other as a place of habitation for priests and royalty. He said that the style of architecture was quite different from that found in Babylonia and at Nineveh. Each block of buildings was surrounded by a breastwork faced in some places with kiln-burnt bricks to make the building more secure. Both the temple and its surroundings must have been at different times occupied by two distinct peoples, because the second occupants had half filled up with *débris* the twenty-five feet original height of the rooms, and had them paved, making it appear as if their floor was the original level of the chambers.

Among other places where excavations were carried on, the mound Tel-Ibraheem, or, as is supposed, the ancient Kutha, was mentioned, with other sites between that and Babylon, and a description was given of the palace situated at Birs Nimroud, where Nabonidus is supposed to have resided at the time Babylon was taken by Cyrus. Here were unearthed numerous broken capitals, fragments of enamelled bricks, etc., and the heavy bronze object found in use as a doorstep, but evidently not constructed for this purpose. Mr. Rassam was of opinion that it originally was the leaf of a gate, but had at some time been cut in halves, one half only being used for a doorstep.

Other sites were mentioned, including that of Tel Loh, and a description given of the manner of work pursued in the excavations, with some account of the difficulties with which such explorations are attended.

The following Communication has been received from Dr. Birch:—

ON SOME OSTRAKA, OR INSCRIBED POTSDHERDS, OF THE
TIME OF THE TWELVE CÆSARS.

The British Museum has lately acquired from Mr. Greville Chester a considerable number of *ostraka* or potsherds, discovered at Elephantine, Thebes, and other places. Immense numbers have been found, and Professor Wiedemann is said to possess upwards of one thousand pieces. According to the information I have derived from Mr. Greville Chester and Mr. Walter Myers, these fragments are discovered inserted in the sun-dried bricks of Coptic buildings as bonding for the fragile clay. They consist principally: (1) of fragments

with hieratic inscriptions traced in black ink, of which only a few have been found ; (2) fragments with demotic inscriptions relating to various subjects, of which considerable numbers have been discovered ; (3) fragments with Greek inscriptions relating to various subjects, but principally tax-gatherers' receipts for the different impositions under the Roman Empire, none having been found earlier than the first Cæsars ; (4) fragments with Coptic inscriptions, chiefly religious, and letters.

These have all been written on sherds, or pieces of broken pottery, and the nature of the inscriptions point to the different ages of the various kinds of pottery employed for the purpose. That of the hieratic period is rather thick, and red externally, but with a black fracture in the middle. Those of the period of the Roman Empire are from smooth vases, not glazed, made of a red paste, with a red fracture throughout, but used for holding liquids, apparently wine, and pitched internally for the purpose. The later Greek inscriptions were written upon pale red or yellow vases, and the Coptic on red pottery, often fluted, showing that they came from fluted amphoræ or diotas, also used for water or wine, some of which exist in different collections.

The taxation of the local districts at this period was divided into the "poll" or "capitation tax," the *λαογραφία* ; the *χειρωναξίον*, the licence for exercising a handicraft ; but it is doubtful if it was paid in addition to the poll-tax and the tax for "the conservancy," or "guard of the river." The *ποταμόφυλακία*, for which there was a separate tax, and another charge for the Prætor's galley, the *πλοῖον πρετώριον*, besides which were dues paid upon commodities or customs. Considering the localities, some of these taxes were heavy ; but the number of contributaries to the taxes found upon the tiles is comparatively few. The highest amount of any of these taxes amounted to 20 drachmas, and lowest amount, 8 drachmas ; the poll tax, which was so low as that, having risen to 17 drachmas in the reign of Domitian. Besides the actual tax, a small sum was paid for registration if a part of the tax only was paid upon account.

The tax was paid upon an assessment called *μερισμός*, and the amount varied annually ; there was, however, no income tax, although the other contributions all belong to the class of direct taxes.

There were different collectors of taxes, as the one of money and corn, the *πράκτηρ ἀργυρικῆς καὶ σιτικῆς*, and the one of Ptolemy at

Elephantine; while at Syene they were called *μισθωτῆς*, either that they hired the taxes, or were hired for the purpose at Syene; and there was a company or corporation of these collectors. They were called *τελωνιὸς* in the New Testament; nor is the word *τέλος* or tribute mentioned, Egypt being a province of the empire, and no longer governed by independent rulers. The Hebrew poll-tax or tribute was a drachma. The tiles as a rule are most difficult to read, and often mere scrawls and contractions, as in mediæval manuscripts, of constant occurrence. Proper names of course present additional difficulties, and their constant repetition shows that their transcription was by no means uniform. The Greek words are often written in a very abnormal manner, showing that the collectors were by no means educated people, although Greeks, or Græco-Egyptians. The clerks were Egyptians, and so were those who paid the taxes. The present little fasciculus comprises those only of the twelve Cæsars, and of these as yet Augustus, Tiberius, Galba, Otho, and Titus, have not been found, although as the names of these Emperors are inscribed upon Egyptian temples, they may be hereafter. At the present date the readings of Fröhner are the best. I have given the transcriptions without accents, none being in use at the period.

Διὰ γ' υ . . . φηβων Πυ
 σανχος Πασηνιου λαογραφ
 ιας του τριτου L Γαιου
 καισαρος εκτου Επειφ
 αργυριου ἑξαχμιας
 οκτω βη επι
 λογου

5790 ε.

“Ephebon Pusanchos (or son of Pusanx), grandson of Pasenios, for the poll-tax of the third year of Caius Cæsar, the 6th of Epiphi, 8 drachmas on account.”

This is the oldest acquittance for the poll-tax known, and is fairly legible. The first word is a contraction for either the usual form *διεγράφει* or an equivalent; the *υ* after and subsequent letters might belong to the name . . . phebon. The proper name is also uncertain, probably Ephebon or Neanephebon; so is the phrase the sixth of Epiphi. *Επι λόγου* has been read as “to the treasury,” but is always applied to payments in part; so the reading, “on account” seems preferable. It is of A.D. 39.

Διεργαψεν Πελεας
 Ζμηνυνωτος Πυθωνος ὅ
 λαογραφῶ του τρις καὶ ἑ
 κατου L Νερωνος του
 κυριου αργῶ δρα^χ δεκα
 εξ ζιζ Αμμ^ω Απολλω
 εργαψ Παυνι ε 5790 k.

“Peleas, son of Zmeunos, grandson of Puthon, for the poll-tax for the 13th year of Nero the lord, 16 drachmas of silver. I Ammonios, son of Apollonius, wrote it the 6th of Payni.”

This is one of the best preserved and most legible of the inscriptions. It is of the year A.D. 68.

Διεργα^ψ
 Πανυτος ὁ χιρ
 οναξιου του ἱδ
 L Νερωνος του
 κυριου Επειφ κῆ
 αργυριου δρα^χ ικω
 σι ζ κ Brit. Mus.

“ son of Panys, has acquitted for the workman’s tax of the 14th year of Nero the lord, the 25th Epiphi, 20 drachmas of silver.”

The name of the son Panys, or Panubs, is difficult to read. The number of silver drachmas is high for this date. It will be observed that the amount was reckoned *ικωσι* for *εἰκοσι*. This tile was obtained of Mr. Greville Chester in 1882, and came from Elephantine. The 14th year of Nero is quite right according to the Canon. It is of A.D. 68.

Διεργῶ Φενωβις Παχοπαίου
 ὁ χ λινογραφῶ ἐτ^ο τεταρτου L
 Ουεσπασιανου του κυριου Μεσορη
 ζ αργῶ δρα^γ δεκα ενω ζ ιθ
 Μελανους Ερμοδοτου εργαψα

“Phenobis son of Pachompaios, a linen worker, for the workman’s tax of linen work, has acquitted for the fourth year of Vespasian the lord, the 30th Mesore, 12 silver drachmas. I Melanous, son of Hermodotus, have written it.”

No tiles have come before me of Galba or Otho. This tile, very difficult to read, is in the Museum of Leyden, Leeman’s “Mon. Eg.,” d. M. d. Pays Bas à Leide, II, Pl. ccxxxix, No. 455, is very

difficult to read, owing apparently to a correction made in the second, where the tax gatherer has been uncertain if he should write *χιρονάξιον* or *λαογρύφια*. It is of A.D. 74. Phenobis is probably the same as Phenopis, who paid the poll-tax in the eighth year of Vespasian, A.D. 72.

Διερραφῆ Φενωφίς Παχάμπαιου λις
 π̄ λαογρῶ εκτου ετους
 Ουεσπασιανου του κυριου
 Παχων ε̄ επι λ̄ αργῶ ε̄ρα^χ ογ
 κτω ζη οβ̄ε̄ επι αργῶ
 ε̄ραχ οκτω κι . . . λον αρ
 ερραφῆ 5791 d.

"Phenophis son of Pachampaio, the linen draper, has acquitted for the sixth year of Vespasian the lord, the fourth year of Pachon, upon account, 8 drachmas 1 obolus, for 18 drachmas of silver. I have written it."

Here also *ἐπὶ λόγῳ* in contraction for a partial payment of the whole tax. As the whole poll-tax of this year was 16 drachmas, there still remained 8 drachmas and one obolus to pay, which was not done till Payni A.D. 74.

Διερρ̄ Φενωπις
 π̄ λαογ̄ ωγδ̄ων
 Ουισπασιανου το
 Παυι κ̄ε αργῶ ε̄ρα
 ε̄εκα ε̄ξ ις Διανοη 5790 d.
 ερρ̄

"Phenopis has acquitted for the poll-tax the 8th (year) of Vespasian the (lord), the 25th Payni, 16 drachmas . . . I Dianoe [thos] have written it."

This is A.D. 70; the name of the collector is indistinct.

Διερραφῆ Ψενωπις Παχομ
 π̄ λ̄ ογδ̄ων ετους
 Ουεσπασιανου του κυριου
 Μεσορη̄ ε̄ επι λ̄ αργῶ ε̄ρᾱ
 ωγκτω βιθ̄
 ερρ̄ 5791 j.

"Psenopis (or Phenopis) son of Pachom(paios), for the workman's tax of the 8th year of Vespasian the lord, the 4th Mesore, upon account 8 drachmas 2nd Tybi have written."

The name here is apparently written Psenopis. The word eighth is written $\omega\gamma\kappa\tau\omega$ as before for $\acute{\omicron}\kappa\tau\acute{\omega}$ ἐπι λόγῳ; on account is written in contraction. This tile is also A.D. 76. *Ostraka* of the ninth year of Vespasian have been published in the *Rev. Arch.*, N.S., Vol. XI, p. 45; and Minutoli 32, n. 17. It is read ἐπὶ λόγῳ; these receipts are for Patraen Snouphis son of Aouspmas, both for the poll and workman's tax.

Τριᾶδελφος διεργραψῆ
 ὅ χ τριτου L Δομιτιανου
 του κυριου ἑεκα
 ακ 4 Σωκρατῆ εργραψῆ(x) 5790 o.

"Triadelphos . . . has paid for the workman's tax for the third year of Domitian the lord . . . 16 drachmas, the 6th (?) of Choiak. I Socrates wrote it."

Imperfect and very illegible. The number of drachmas is uncertain, but the workman's tax was heavy, as it amounted to 20 drachmas in the reign of Nero. This is of A.D. 84. I have seen no tiles of Titus.

Διεργραψῆ Φενωφίς
 Παχομπαου (υπερ?)
 λαογρηφῆ Δ L Δομητιανου
 του κυριου ἑραχ 15
 Σωκρατῆ εργραψῆ 5790 α.

"Phenophis son of Pachompaos, on account of the poll-tax of the fourth year of Domitian the lord, 16 drachmas. I Socrates wrote it."

This of A.D. 85. The difficult word after Pachompaos is either ὑπερ or λοῦς, for linendraper λινὸπωλος.

Ου)χλεριος πρᾶς ιερῶ πνλ Σοηνης
 ἑτα Παν βοουθ ἑιεργῶ
 μητρος Πανωφίφιος ἑραχμης τεσσαρχας
 σῆις Η L Δομιτιανου κτισαρος του
 κυριου ἑιεργῶ θ 5789 f.

"Valerius tax gatherer of the sacred gate of Syene, with the assistance of Panouphis, whose mother is Panouphis, has paid for the poll-tax 4 drachmas, the eighth year of Domitian Cæsar the lord. Has acquitted the 9th."

This tile is also difficult and obscure to read, and does not give either the nature of the tax or the amount paid. The name at the end is that of the tax gatherer in a contracted form, perhaps for Psammous, Psametichus.

This is of A.D. 96. The contracted word at the end is probably the name of the collector.

The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, April 3rd, 1883, at 8 p.m., when the following Paper will be read :—

By DR. S. LOUIS :—"Old Jewish Rules and Practices for the Relief of the Poor."

By the kindness of Mr. D. Parish, several painted Canopic Vases will be exhibited, upon which the President will make some remarks.



THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

- BOTTA, Monuments de Ninive. 5 vols., folio. 1847-1850.
 PLACE, Ninive et l'Assyrie, 1866-1869. 3 vols., folio.
 BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
 ————— Geographische Inschriften Altaegyptische Denkmäler.
 Vols. I—III (Brugsch).
 ————— Recueil de Monuments Égyptiens, copiés sur lieux et
 publiés par H. Brugsch et J. Dümichen. (4 vols., and
 the text by Dümichen of vols. 3 and 4.)
 DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
 ————— 2nd series, 1869.
 ————— Altaegyptische Kalender-Inschriften, 1866.
 ————— Tempel-Inschriften, 1862. 2 vols., folio.
 GOLENISCHEFF, Die Metternichstele. Folio, 1877.
 LEPSIUS, Nubian Grammar, &c., 1880.
 ————— Königsbuch der Alten Aegypter. 4to., 1858.
 DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
 WRIGHT, Arabic Grammar and Chrestomathy.
 SCHROEDER, Die Phönizische Sprache.
 HAUPT, Die Sumerischen Familiengesetze.
 SCHRADER, Die Keilinschriften und das Alte Testament. 1872.
 RAWLINSON, CANON, Five Great Monarchies. 3 vols.
 ————— 6th and 7th do.
 ————— History of Egypt. 2 vols. 1882.
 OSBURN, The Antiquities of Egypt. 8vo., 1841.
 ROBINSON, Biblical Researches. 8vo., 1841-1852.
 PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
 BURKHARDT, Eastern Travels.
 WILKINSON, Materia Hieroglyphica. Malta, 1824-30. (*Text only*.)
 CHABAS, Mélanges Égyptologiques. 1862-1873.
 ————— L'Égyptologie. Tomes I and II, 1874 and 1875.
 MASPERO, Du genre épistolaire chez les Égyptiens de l'époque
 Phraonique. 8vo. Paris, 1872.
 ————— De Carchemis oppidi Situ et Historia Antiquissimâ.
 8vo. Paris, 1872.
 RHIND, A. H., Thebes : its Tombs and Tenants. 1862.

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

THIRTEENTH SESSION, 1882-83.

Sixth Meeting, 3rd April, 1883.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT.

IN THE CHAIR.

The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Society :—Procéedings. Vol. XXXIV. No. 223. 8vo. London. 1883.

From the Royal Geographical Society :—The Proceedings and Monthly Record of Geography. Vol. V. No. 4. 8vo. April, 1883.

From the Royal Institute of British Architects :—The Proceedings. Session 1882-83. Nos. 10 and 11. 4to. London. 1883.

From the Author, Professor C. P. Tiele :—Review of Eberhard Schrader, *Die Keilinschriften das Alte Testament*. 1883.

From the Editor :—*Choix de Textes Égyptiens traductions inédités de François Chabas. Publiées par P. J. de Horrack. Paris. 8vo. 1883.*

The following have been purchased by the Council for the Library of the Society :—

Notice des principaux Monuments exposés dans les galeries provisoires du Musée d'antiquités Égyptiennes à Boulaq. Par Aug. Mariette-Bey. Alexandrie. 1864.

Kurzgefasste Geschichte Babylonien und Assyrien nach den Keilschrift-denkmälern, mit besonderer Berücksichtigung des Alten Testaments. Von F. Mürdter. 8vo. Stuttgart. 1882.

Assyrian Antiquities. Guide to the Kouyunjik Gallery. Printed by order of the Trustees of the British Museum. 8vo. 1883.

The following were nominated for election at the next meeting, May 1st :—

Rev. A. Dutau, S.J., 10, Boulevard d'Enfer, Paris.

James Cutcliffe Marshall, Fenton Hall, Stoke-on-Trent.

Claude A. Montefiore, 18, Portman Square, W.

J. Lancaster Ranking, Surgeon-General, Wilford Lodge, Leamington.

Lady Sitwell, Renishaw Hall, Derbyshire.

Geo. Augustus Simcox, M.A., 1, Douro Place, Victoria Road, Kensington, W.

Dr. H. Clay Trumbull, 725, Chestnut Street, Philadelphia, U.S.A.

The following were elected Members of the Society :—

Professor Carl Hofmann, Graz, Austria.

Sir A. Henry Layard, G.C.B., &c., &c., 3, Savile Row, W.

Mrs. Morison Miller, 51, Lauriston-place, Edinburgh, and Morison House, Hetland, Lockerbie.

Rev. John P. Peters, Ph.D., Ninety-ninth Street, Tenth Avenue, New York City, U.S.A.

Edward David Price, F.G.S., Sydney House Collegiate School, Hounslow, W.

To be added to the List of Subscribers :—

L'Université Catholique de Lille, 56, Boulevard Vauban, Lille.

The following Paper was read by Dr. S. Louis, "On The Poor-Laws of the Hebrews:—

THE several terms which, in Hebrew, convey the idea of poverty, having been briefly referred to, the two words עני and אביון, the only two which are employed in the scriptural passages containing the poor laws, were etymologically defined, and the difference in their meanings pointed out.

An explanation was then given, based upon a passage from the Mishna (Peah VIII, 8), of what was understood by the term "poor" from a legal point of view ; that is, to what state of poverty a man must have sunk to be entitled to participate in the provisions made for paupers. Incidentally this passage throws light on the state of trade in Talmudical times ; this was illustrated by reference to trade regulations and customs mentioned in the Talmud.

After these preliminary explanations, the poor laws referring to the produce of the land were explained :—

According to Leviticus xix, 9 and 10, not a field was to be harvested, nor the fruit of a tree to be gathered, without leaving a portion of it for the poor. The minimum quantity to be so left is fixed in the Mishna at the sixtieth part ; and the law applies to all kinds of cereals and of pulse, to the produce of the vineyard, the olive plantation, and nearly all other fruit trees.

Besides these so-called "corners," the poor were entitled to the gleanings, and to any portion inadvertently left behind in the field. The non-Israelite poor were admitted, equally with the Israelites, to participate in these gifts. (Maimonides, "Gifts for the Poor," I, 9.)

An important provision was the tithe for the poor (מעשר עני), which was levied as a second tithe every third year, or more accurately, in the third and sixth year in each cycle of seven years. It amounted to about nine per cent. of the whole produce of the land, and in its distribution some liberty of action was conceded to the proprietor. By referring to an instance of modern statistics, it was computed that these agricultural gifts alone safeguarded the poor against starvation.

During the seventh or Sabbatical year, when, according to Exodus xxiii, 10 and 11, there was to be no sowing nor reaping, the spontaneous productions of earth and tree were free to every one, rich and poor alike. It is impossible to calculate to what

extent the poor were benefited by this law; but the regulations concerning the Sabbatical year lead to the inference that the pauper population was not exposed to pressing want.

Another boon conferred upon the poor by the Sabbatical year was the cancelling of debts. According to the Mosaic law, money lending as a profitable business was rendered an impossibility. The law enjoins the lending of money to those who are in need, as an act of benevolence, and the Rabbins declare, "Greater is he who lends than he who gives alms." (Sabbath 63, *a*.)

It was, however, found in the course of time that the law of cancelling debts exercised a paralysing influence on commercial transactions, and a remedy was introduced by Hilel (who lived in the time of the Emperor Augustus), by which the effect of the Sabbatical year was evaded.

Instituting a brief comparison between these laws, and the Licinian rogations among the Romans, as well as the *σεισαχθεία* introduced by Solon, it appears that these laws of the Romans and Greeks were purely *remedial*, while the laws enacted among the Jews were *preventive*. Nevertheless, they did not have the effect of extinguishing pauperism, and a field was still left open for charity properly so called, or almsgiving.

The word which has obtained currency among the Jews for the expression of "charity," or rather "alms," is *צדקה*. Throughout the Old Testament this word signifies "justice" or "righteousness," its Greek equivalent being *ἐλεημοσύνη* but in Rabbinical writings it is invariably used in the sense of "benevolence" or "alms."

From very early times regular organisations for the relief of the poor existed in Jewish communities. They appointed well-known and trusty men who were charged with the collection and distribution of charitable gifts. There was a daily collection of eatables, known by the name of *תמחוי*—literally a vessel or dish—and there was a weekly collection of money, called *קופה*—literally a box (Baba Bathra, 8, *b*). The contributions were not always voluntary, but in many communities the members were assessed, and the payment of poor-rates was then enforced. The obligation of maintaining the needy extended to the non-Israelite poor. (Gittin, 61, *a*.)

It was one of the most essential conditions insisted on in almsgiving that it should not be done in public. The same idea is expressed in the beginning of the sixth chapter of Matthew; but whilst the New Testament passage appears to be chiefly directed

against ostentation, the leading idea in the Rabbinical injunction is a tender regard for the feelings of the recipient, as it is considered sinful to put a man to shame in public.

In connection with this ethical precept, it is remarkable that the expression always used for "causing a man to blush," is "causing the face to grow white." Obadjah di Bertinoro, a commentator who lived in the fifteenth century, explains that when a man feels ashamed his face first becomes red, but afterwards turns white; and this view is confirmed by a passage in Darwin's "Expression of Emotions."

The most delicate consideration was exhibited in the case of men who had once been in good circumstances, but had become reduced. In the temple at Jerusalem there was a room set apart, called **לשכת השאוס**, "the chamber of the silent," where pious persons deposited money for charitable purposes, and where descendants of good families, who had become reduced in circumstances, secretly obtained relief. (Shekalim, V, 6.)

Remarks were added by Rev. A. Löwy, Rev. W. Wright, D.D., Major Joseph, and Dr. S. Louis.

Mr. Villiers Stuart, M.P., exhibited two Flint Instruments which he had found whilst excavating at a ruined pyramid situated between Gizeh and Abusir.

The smaller one—a beautifully finished instrument of black flint, with fluted and double-edged shaft and arrow-shaped point; it had also a peculiar curve—was discovered at a depth of about 15 feet from the surface; the larger one, which was unfortunately broken across the blade, was a knife with the blade and handle alike of flint. (Chabas, "L'Antiquité Historique," p. 333, &c.)

Unfortunately, owing to the great quantity of earth and rubbish, the excavations had to be left unfinished, but sufficient had been done to lay bare the alabaster walls of a temple. On the floor of this temple stood nine large basins of alabaster, each 15 feet in circumference and surrounded by twenty-four pilasters. These basins were pierced at the bottom with holes for the discharge of their contents. They may have been used to catch the blood of victims used for sacrifice; the flint knives were almost certainly used for the slaughtering and flaying of such victims. The basins had been sunk nearly level with the floor.

The temple had evidently been attached to the pyramid, and recalled some of the features of the "Temple of the Sphinx," and appeared to belong to the same epoch.

There were also on the floor of the temple some extremely rude hand-made earthen vessels, about 8 inches high, one of which was still perfect.

It was pointed out by Mr. Stuart that a remarkable fact in connection with the flint implements is that the most highly finished and peculiarly fashioned one exactly resembles in all its details the same instruments of Obsidian from Mexico, which may be seen in the cases of the British Museum.

Remarks were added by Mr. A. MacCallum and the President.

The President made the following observations on the Canopic Vases from Tel Basta, exhibited by Mr. F. G. Hilton Price:—

That the earliest Canopic vases were found in Theban times, and of the period of the XVIIIth dynasty, continuing from that period about B.C. 1700 to the XXVIth dynasty, or about B.C. 530, although a few may have possibly been made later. They were made principally of alabaster and calcareous stone—rarely of dark stone, the one on the table exhibited by Mr. Hilton Price, being the only example in that material with which he was acquainted; a few of a very late period were made of terra-cotta, and then covered with white paint, and the inscriptions traced in black or other colours. Others were made of green or blue porcelain, and there is evidence of Canopic vases of great beauty with the inscriptions inlaid in coloured glass. On the best alabaster vases the inscriptions were generally incised, but occasionally painted in black colour. For cheaper funerals dummies or solid vases of this class of calcareous stone, with inscriptions traced in, were used, and wooden dummies were also made by the undertakers inscribed as the others. In the case of the use of dummies, the viscera which they ought to have contained were separately embalmed in packets, and waxen figures of the genii of the vases placed in the body.

The vases themselves are found in the tombs placed in various ways—sometimes at the four corners of the sarcophagi, at others on the floor without any special arrangement, or else arranged in niches of the walls of the sepulchres; they were placed in a box with four

compartments, surmounted by a figure of the jackal of Anubis, the god of the embalming, the box either placed on a sledge or else fashioned as a sledge to transport to the tomb and deposit with the mummy. From the times of the XXIVth dynasty, when the vignette of the 89th chapter of the Ritual is constantly represented on the coffins, they appear under the bier of the mummied dead, the soul of which, in shape of a human-headed hawk, flies down to visit or rejoin the body.

The vases were in shape of the four genii of the Karneter of Hades, mummied, and generally, but not always, have the appropriate heads of the genii, although they are occasionally found with all four heads human. It must be remembered that these genii represented the four cardinal points of the compass, and that the deposit of the viscera symbolized their dispersion to those cardinal points: the viscera, according to Egyptian notions, being the source of all evil to man.

The genii were as follows :—

1. Amseth, Ams, or Mestha, human-headed ; under the protection of Isis ; his vase held the stomach and larger entrails.
2. Hapi, with the head of a cynocephalus ; under the protection of Nephthys ; his vase held the smaller entrails.
3. Tuamutef, jackal-headed ; under the protection of Neith ; his vase held the lungs and heart.
4. Kabhsenuf, hawk-headed ; under the protection of Selk ; his vase held the liver and gall bladder.

The inscriptions placed upon them vary, for sometimes the name of the genius and of the deceased only are found ; at others, various inscriptions and formulas : that of Nasikhonsu, of the time of the XXIst dynasty, whose alabaster vases with wooden heads I have subsequently examined, and of whose formula a description has appeared in the Proceedings.

The usual normal formula has been given by the late Vcte. De Rougé in his "*Stèle Egyptienne*," p. 121. This varies considerably in arrangement, but is good for the majority of the best vases of the period. These formulæ, according to De Rougé, are as follows, but there are great difficulties over some portions of the inscriptions. The first, attached to the vases of Amset, is as follows :—

"Says Isis, I throw my arms round on account of what is in me ; I impart my protection over Amset who is in me."

That over Amset sometimes reads :—

“I prevail over the enemy, I impart my protection over Amset, who is in me ; the protection of the deceased is the protection of Amset ; the deceased is Amset.”

The second, that upon the vases of Hapi, reads :—

“Says Nephthys, I conceal the mystery, I impart the protection (or warmth) of Hapi, who is in me ; the warmth of the deceased is the warmth of Hapi which is in me.”

The third, that upon the vase of Tuaumutef, reads :—

“Says Neith, I watch night and morn daily, making the protection of Tuaumutef, who is in me ; I impart safety to the deceased.”

The fourth, that over Kabhsenuf, reads :—

“Says Selk, I transport my safety, daily taking care of Kabhsenuf, who is in me ; the care of the deceased.”

There is a great deal of difficulty about the meaning of these formulæ, which require a special study to overcome some of the obscurer parts of the text.

The President then called attention to the vases on the table which belonged to Mr. Hilton Price, who had kindly sent them for exhibition, along with copies and translations of their inscriptions which Mr. Price had prepared.

The following Communications have been received :—

I have before me impressions of four ancient oriental gems, which are reproduced in the accompanying plate. Three of these were sent to me by the Rev. W. Wright, D.D., of the British and Foreign Bible Society ; the other by our Secretary Mr. Rylands.* In attempting to decipher the inscriptions, I have consulted Professors Noeldeke and Euting, of Strassburg, whose assistance in such matters is invaluable. I do not attempt to explain the symbols on the seals.

1. Egyptian emblems. Between the legs of the winged hawk-headed deity, above those of the seated human figure, are the three letters **ꜥꜥꜥ**. These must have formed the name of the possessor of the seal ; its pronunciation is of course uncertain (*'Ani*?). The seal cannot be that of a Hebrew ; and even if it were, no one would put the pronoun **ꜥꜥꜥ**, “I,” in such a position.

* In the possession of Mr. H. Rassam, and kindly lent by him, to be engraved.—W. H. R.

2. In the middle a bird, over the head of which is $\cup$. Above and below, we read in two lines

לתמכאל
בן חפת

(*belonging*) to *T'makh-'êl*, the son of *Hpt*. The second and third letters of the first line are slightly injured, but the reading is in no way doubtful. The seal appears to be ancient Hebrew. The radical תמך is well known in the Old Testament. The name לתמכאל is found as that of an Aramæan in Levy, *Siegel und Gemmen*, p. 15, no. 22, where we read לתמכאל בר מלכם , with the characteristic difference of בר for בן ; perhaps also as that of a Phœnician in Levy, *op. cit.*, p. 24, no. 4, if we may venture to read לתמכאל בן מקנמלך instead of לתמכא , the gem being slightly damaged at this point (see Taf. II., no. 3). The name חפת , *Hpt*, may perhaps be pronounced חפּת , *Huppath*; compare חפּה , 1 Chron. xxiv. 13.

3. In the lower half, a bird, a star, and $\cup$. The name of the owner is יעדראל , but the letter ל , in the lower line, has been cut the wrong way, so that it appears in the impression as Δ instead of $\angle$. This seal seems also to be ancient Hebrew. The name יעדראל , *Ye'dar-'êl* (?), "God marshals" or "God herds," may be compared with the Biblical עֲדְרִיאל .

4. This gem exhibits on its larger surface several figures of an Assyrian type, with an animal at their feet. The personage seated on a chair or throne seems to be receiving something from the two who are standing in front of him. I cannot make out what is over the head of the central figure. On the smaller surface is an inscription, consisting of eight very ancient characters, in two lines, unfortunately rather indistinct. I read in the upper line לקסר , (*belonging*) to *Ksr*. The second line seems to have contained an epithet (patronymic or the like). The first letter is clearly א , the second ב , the fourth י , giving אב*י ; but the third is very doubtful. It can hardly be ג , because the form λ for ג is too late to be in unison with the other letters; and besides the dot or point at the back, λ , has to be accounted for. We can scarcely take it for a ז (Σ), still less for a reversed ל (Δ for $\angle$, as in no. 3).

CAMBRIDGE,

14th February, 1883.

WM. WRIGHT.

ARROS HOUSE, CENTRAL HILL, UPPER NORWOOD,
24th February, 1883.

To Prof. Wright's readings I wish to add a few items, chiefly of local interest.

The three seals which belong to me are *Scarabœoides*. No. 1 is a bloodstone, and is pierced lengthways. It was brought from Persia by an Englishman, with a large number of Pehlevi and other gems. Prof. Wright's reading of this gem is absolutely certain. I should like to see the symbols on this and the other seals dealt with.

No. 2 is a Carnelian, and is not pierced. The edges of it were slightly broken in removing it from the setting. I bought it at Beyrout, with a handful of Jewish coins which had been brought from Palestine. The accompanying coins fix the locality from which it came, not the date.

No. 3 is a red opaque stone, pierced lengthways. I bought it at Damascus, with a number of Jewish and Phœnician coins brought from Southern Palestine.

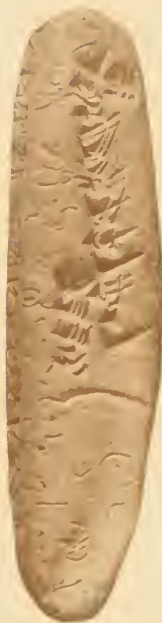
M. Clermont-Ganneau writes me with reference to Nos. 2 and 3 : "Ces deux cachets me paraissent fort intéressants par les noms propres qu'ils renferment.

"No. 2. Tamkel (= El l'a soutenu) fils d'Haggît. Haggît est un nom de femme, signifiant née un jour de fête, Festiva. Ce nom se retrouve dans la Bible (2 Sam. iii, 4 ; and 1 Kings i, 5).

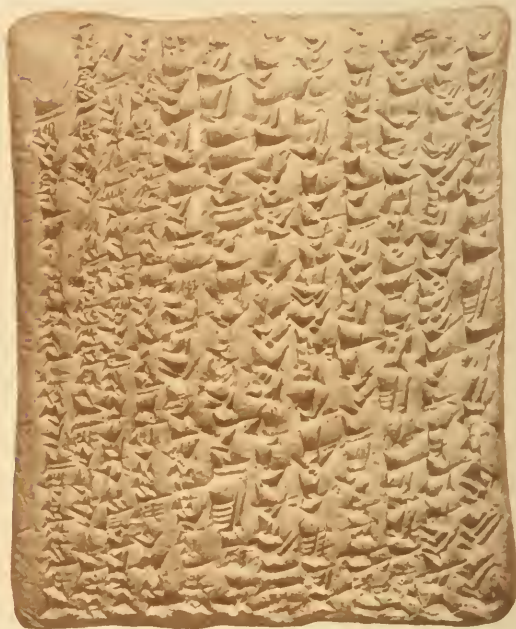
"No 3. L'autre nom paraît être Ya'adriel (see 1 Sam. xviii, 19)."

According to these suggestions of M. Clermont-Ganneau, No. 2 may have belonged to a son of King David, by his wife Haggith (2 Sam. iii, 4 ; and 1 Kings i, 5), and No. 3 may have belonged to Adriel the Meholathite, to whom King Saul's eldest daughter was given, when she should have been given to David.

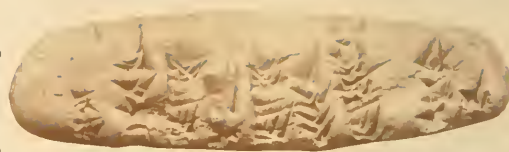
Prof. Wright and M. Clermont-Ganneau agree as to all the letters in inscription No. 2 except the last but one. Prof. Wright reads פ, M. Clermont-Ganneau ג. The Phœnician inscription of Eshmunazar, king of Sidon, might justify either reading, the פ and ג being very much alike. It would require however an additional *yod* to make the Haggith (חגיית) of the Bible, even if it were certain that the letter was ג instead of פ. I do not think, however, that any Oriental would write himself down on his seal the son of a woman. Adonijah



First Edge.



O B V E R S E .

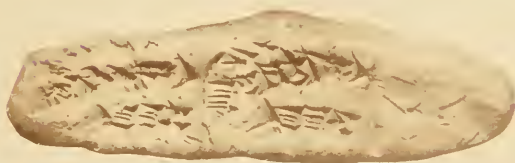


Right-hand Edge.

Second Edge.



Left-hand Edge.



REVERSE.



CONTRACT TABLET FROM BABYLON,
INSCRIBED WITH UNKNOWN CHARACTERS.

BRITISH MUSEUM, 81.11.3.

VASE OF AMSET.



VASE OF HAPL.



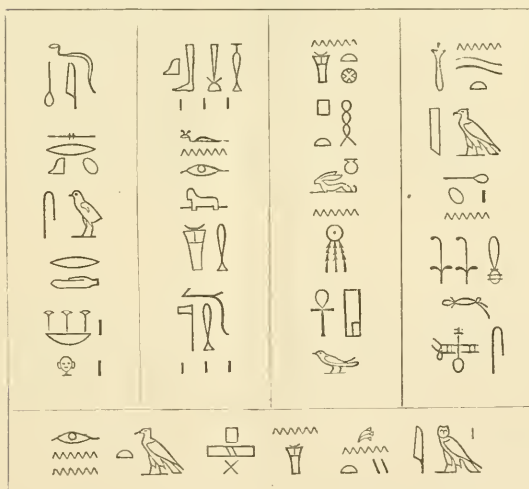
CANOPIC VASES FROM TEL BASTA.

IN THE POSSESSION OF F. G. HILTON PRICE, ESQ.

VASE OF TUAMUTEF.



VASE OF KABHSENUF.



CANOPIC VASES FROM TEL BASTA.

IN THE POSSESSION OF F. G. HILTON PRICE, ESQ.



is called the son of Haggith, to fix his place in king David's household, where there were many wives and mothers; but the Oriental does not publicly identify himself with his wife or mother. He calls himself the son of his father, or the father of his son, if he has a son. As regards No. 3, it is only by sacrificing the first letter *yod* that we get the name Adriel. However gratifying M. Ganneau's suggestions may be, I think it necessary to point out the difficulties that seem to me to stand in the way of their acceptance.

The third and fourth letters in No. 3 are almost exactly alike, but the earliest Phœnician inscriptions justify the above reading. It is interesting as well as reassuring to find almost absolute unanimity among scholars as to the reading of these ancient and somewhat defaced inscriptions.

WILLIAM WRIGHT.

NOTE.—The plate illustrating these communications will be issued with the next number of the *Proceedings*.—W. H. R.

The following communication has been received from Mr. Theo. G. Pinches:—

The document of which a description is now given, was sent from Babylon by Mr. Rassam in December, 1881. Its size is $3\frac{1}{8}$ in. by $2\frac{5}{8}$ in., and it contains twenty-three lines of wedge-writing on the obverse, reverse, and one of the edges, with the names of some of the contracting parties also on two other edges. On the reverse, immediately before the name of the scribe, is a line of unknown characters very clearly written. Another line, not so clear, runs along the top edge, and can just be seen, upside down, at the top of the obverse; the edge above shows the same line turned the right way, and in a better position for reading. On the same edge, just below this line, are a few characters, evidently referring to the nail-mark of Ina-Ê-sagila-lilbir, one of the contracting parties. A few more of these unknown characters accompany the nail-mark of Ê-sagila-lišši, another contracting party, on the left-hand edge. The text, which is, in some places, rather difficult to translate, refers to the sale of a female slave for one mana eight shekels of silver. The transcription and translation are as follows:—

81—11-3.

1. | Ê-sag-ila-liš-ši mâru ša | Nabû-ku-şur-šu | Bêl-balaţ-su
Ê-sagila-lišši son of Nabû-kuşur-šu, Bêl-balaţ-su
2. mâru ša | Ni-din-tum, û | Ina Ê-sag-ila-lil-bir mâru šv
son of Nidintum, and Ina-Ê-sagila-lilbir son of
| Bêl-ê-de-ru
Bêl-êderu
3. ina hu-ud lib-bi-šu-nu, ✠ Nanâ-Bâbili-ši-nin-ni, âmat-su-nu
in the joy of their heart, Nanâ-Bâbili-šininni, their servant
4. ša   | êmitti-šu a-na šumi ša | Ina Ê-sag-ila-lil-bir,
whose right hand with the name of Ina-Ê-sagila-lilbir,
na-din amē-lut-tum
the slave-dealer
5. mâri ša | Bêl-e-de-ru šaţ-ra-at a-na išten ma-na samna šikli kaspi
son of Bêl-êderu, is inscribed, for one mana eight shekels of silver
6.  a-lu-u a-na šimi gam-ru-tu a-na | Ur-ma-nu-u
refined, for the price complete to Urmanû
7. mâri-ša | Li-ši-ir id-din-nu' kaspa' isten ma-na samna šikli kaspi
son of Lišir they have given ; the money, 1 mana 8 shekels of silver
8.  a-lu-u ši-im ✠ Nanâ-Bâbili-ši-nin-ni, âmat mu-tim
refined, the price of Nanâ-Bâbili-šininni, the servant of the men
9. | Ê-sag-ila-liš-ši | Bêl-balaţ-su u | Ina-Ê-sag-il-la-lil-bir
Ê-sagila-lišši, Bêl-balaţ-su, and Ina-Ê-sagila-lilbir
10. ina  atâ | Ur-ma-nu-u ma -ru' e-di-ru'
by the hands of Urmanû have received
11. Ina û-mu pa- a-ri a-na mu - i ✠ Nanâ-Bâbili-ši-nin-ni
In the day (when) a claim upon Nanâ-Bâbili-šininni
12. âmat mu-tim it-tab- u-u | Ê-sag-ila-liš-ši
the servant of the men, is made, Ê-sagila-lišši,
(edge) | Bêl-balaţ-su u | Ina-Ê sag-ila-lil-bir
Bêl-balaţ-su, and Ina-Ê-sagila-lilbir,
14. na-din amē-lut-tum u-mar  a-u-nim-ma
the slave-dealer, the amount(?) have collected(?) and
15. a-na | Ur-ma-nu-u i-nam-din-nu'.
to Urmanû shall give.

REVERSE.

16. (Amēlu) Mu-kin-nu : 𐎶 Bêl-upaḥḫ-ir, mârî-šu ša 𐎶 Bêl-balaṭ-su ;
Witnesses : Bêl-upaḥḫir son of Bêl-balaṭ-su ;
17. 𐎶 Bêl-iddin, mârî-šu ša 𐎶 I-ḫu-bu ; 𐎶 Nabû-id-dan-nu
Bêl-iddin, son of Iḫubu ; Nabû-iddannu,
18. mârû ša 𐎶 Nabû-balaṭ-su ; 𐎶 Su-a mârû ša 𐎶 Na-din ;
son of Nabû-balaṭ-su ; Sua, son of Nadin ;
19. 𐎶 Nabû-balaṭ-su mârî-šu ša 𐎶 U-maš ; 𐎶 Bêl-êreš mârî-šu ša
Nabû-balaṭ-su, son of Umaš ; Bêl-êreš son of
20. 𐎶 𐎶 Samš-a-a.
Šamšâa.

[Here a line of unknown characters, evidently the name of a witness.]

21. 𐎶 𐎶 Ea-êpuš (amēlu) šangu, mârû ša 𐎶 Nabû-lu-ud-da, Ê-ki
Hea-êpuš, the scribe, son of Nabû-ludda. Babylon,
22. araḫ Adari, ûmu êstinêšrit, šattu XXIII KAM 𐎶 Ar-tak-šat-su
month Adar, day eleventh, year 23rd, Artaxerxes.
- šar matāti
king of countries.

ON THE LEFT-HAND EDGE.

At the beginning some characters, perhaps the continuation of the line which runs the whole length of the edge at the top of the plate. These are followed by a nail-mark, and then, in wedge-writing, the words, Šu-pur 𐎶 Ê-sag-ila-liššî, *Nail-mark of Ê-sagila-liššî ;* another nail-mark, and the words, Šu-pur 𐎶 Bêl-balaṭ-su, *Nail-mark of Bêl-balaṭ-su.*

ON THE FIRST EDGE.

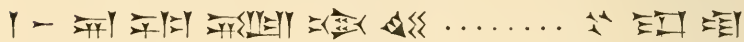
At the beginning, some characters, followed by a nail-mark, and then, in wedge-writing, the words, Šu-pur 𐎶 Ina-Ê-sag-ila-lil-bir, *Nail-mark of Ina-Ê-sagila-lilbir.*

From the above it will be seen that it is a contract between three men, Ê-sagila-liššî, Bêl-balaṭ-su, and Ina-Ê-sagila-lilbir, on the one hand, and Urmanû on the other, in which the last-named buys for

one mana and eight shekels of refined silver, the female slave Nanâ-Bâbili-sininni, and a provision is made by which, if anyone claim the slave, Urmanû gets compensation.

It is curious that in this contract the slave sold seems to have borne on some part of her body the name of one of the sellers, Ina-Ê-sagila-lilbir. The text and literal rendering of lines 4-5, which contain the phrase recording this fact, are as follows :—


 Ša êmitti - šu a - na šumi ša
Who the tablet of her right hand to the name of

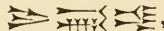

 Ina - Ê - sag - ila - lil - bir šaṭ - ra - at
Ina-Ê-sagila-lilbir is written.

In this line the difficult word is that which is left untranscribed, of this the first element,  *šêru*, means "flesh," and the other  *duppu*, "tablet," lit. "flesh-tablet."  is a word translated by the Assyrian *êmittu* (*êmintu*), from the same root as *îmnu*, the Heb. . It is not unlikely that the part meant by   is the back of the hand, as any other part of the body would, most likely, have been expressed by its special ideogram.* The use of the expression *ša . . . šu*, lit. "who . . . his" = "whose," is the common idiom which is to be found in all the Semitic languages. The masculine *-šu* "his," is almost always used for *-ša*, "her," in these trade-documents. *Šaṭrat* is the 3rd pers. fem. Permansive Kal of *šaṭāru*, "to write," and agrees in gender either with the unknown value of  , or with the word *êmittu*.

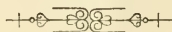
The names of all parties to this contract seem to be Babylonian, and the characters written with the nail-marks on the edges probably represent the names, in cuneiform characters, which accompany them; and if so, judging from the different shape and the straggling

* For a list of the parts of the body, see W.A.I. II, pl. 44, No. 3. It is not unlikely that  is to be transcribed by the Assyrian , and in that case the group is probably to be read *sittu*, and translated "wrist." Compare W.A.I. V pl. 3, l. 92-93,    , *simiri huraši urakkis sittê-sun*, "I bound chains of gold on their wrists." The Assyrian characters  and  are graphic variants of the Babylonian .

form of the writing, are the signatures of the sellers. The longer lines of these unknown characters must refer to the contract itself.

The words translated "slave-dealer," *nadin ameluttum*, mean literally "giver of slaves." *Ameluttum* (= *amēlūtu*) is an abstract noun formed from *amēlu* (compare *Amēl-Marduk*, "Man of Marduk," Evil-Merodach); it is here written with the characters , of which the first is the sign for *amēlu*, "man," and the other two, *-luttum*, are the phonetic complement.

It is suggested by Mr. G. Bertin that the spaces found, in most of these contract-tablets, just before the name of the scribe, was left for the purpose of inserting a docket like that which occurs on this tablet, but that no such docket has yet been found,* because most of the documents which we have of this kind are not the originals, but copies. This is not at all unlikely, and if so, many more tablets having this peculiarity may possibly come to light.



The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, May 1st, 1883, at 8 p.m., when the following Papers will be read:—

I. By PROFESSOR F. DELITZSCH:—"Observations on Babylonian Chronology."

II. REV. A. LÖWY:—

III. By M. ALEXANDER ENMANN:—"Notes on the Origin of the Cypriote Syllabary."

IV. DR. BIRCH:—"Notes on Hieratic Ostraka at Queen's College, Oxford."

V. Squeezes of Monuments from Jerabis, exhibited by the Secretary.

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

- BOTTA, Monuments de Ninive. 5 vols., folio. 1847-1850.
PLACE, Ninive et l'Assyrie, 1866-1869. 3 vols., folio.
BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
————— Geographische Inschriften Altaegyptische Denkmaeler.
Vols. I-III (Brugsch).
————— Recueil de Monuments Égyptiens, copiés sur lieux et
publiés par H. Brugsch et J. Dümichen. (4 vols., and
the text by Dümichen of vols. 3 and 4.)
DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
————— 2nd series, 1869.
————— Altaegyptische Kalender-Inschriften, 1866.
————— Tempel-Inschriften, 1862. 2 vols., folio.
GOLENISCHEFF, Die Metternichstele. Folio, 1877.
LEPSIUS, Nubian Grammar, &c., 1880.
———— Königsbuch der Alten Aegypter. 4to., 1858.
DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
WRIGHT, Arabic Grammar and Chrestomathy.
SCHROEDER, Die Phönizische Sprache.
HAUPT, Die Sumerischen Familiengesetze.
SCHRADER, Die Keilinschriften und das Alte Testament. 1872.
RAWLINSON, CANON, Five Great Monarchies. 3 vols.
————— 6th and 7th do.
————— History of Egypt. 2 vols. 1882.
OSBURN, The Antiquities of Egypt. 8vo., 1841.
ROBINSON, Biblical Researches. 8vo., 1841-1852.
PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
BURKHARDT, Eastern Travels.
WILKINSON, Materia Hieroglyphica. Malta, 1824-30. (*Text only.*)
CHABAS, Mélanges Égyptologiques. 1862-1873.
————— L'Égyptologie. Tomes I and II, 1874 and 1875.
MASPERO, Du genre épistolaire chez les Égyptiens de l'époque
Phraonique. 8vo. Paris, 1872.
————— De Carchemis oppidi Situ et Historia Antiquissimâ.
8vo. Paris, 1872.
RHIND, A. H., Thebes : its Tombs and Tenants. 1862.

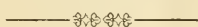
PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

THIRTEENTH SESSION, 1882-83.

Seventh Meeting, 1st May, 1883.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,

IN THE CHAIR.



The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Royal Institute of British Architects :—The Proceedings.

Session 1882-83. Nos. 12 and 13. 4to. London. 1883.

From the Royal Archæological Institute :—The Archæological Journal. No. 157. Vol. XL. 8vo. London. 1883.

From the Palestine Exploration Fund :—The Quarterly Statement, April, 1883. 8vo. London.

From George Perrot :—Exploration Archéologique de la Galatie et de la Bithynie, d'une partie de la Mysie de la Phrygie, de la Cappadoce et du Pont. Exécutée en 1861, et publiée sous les auspices du Ministère de l'Instruction Publique. Par Georges Perrot, Edmund Guillaume, et Jules Delbet. Folio. 2 vols. Paris. 1872.

From the Author, R. V. Lanzzone :—Dizionario di Mitologia Egizia. Terza Dispensa. Con LXXX Tavole. Ptah to Nehebka. 4to. Torino. 1883.

From the Author :—Eridanus: River and Constellation. By Robert Brown, jun., F.S.A. 4to. London. 1883.

[No. xxxix.]

From the Author:—Sceaux Hittites en terre cuite. Par M. G. Perrot.

Extrait de la *Revue Archéologique*, Decembre, 1882. 8vo.
Paris. 1882.

From Robert Bagster:—The Pentateuch according to the Talmud :
Genesis, with a Talmudical Commentary. By Paul Isaac
Hershon. 8vo. London. 1883.

A special vote of thanks was awarded to M. G. Perrot for
his donation to the Library.

The following have been purchased by the Council for the
Library of the Society :—

Le Livre des Morts des Anciens Égyptiens. Traduction complète.
D'après le Papyrus de Turin et les Manuscrits du Louvre.

Accompagnée de Notes et suivie d'un index analytique. Par
Paul Pierret. 8vo. Paris. 1882.

Later Biblical Researches in Palestine and the adjacent Regions.

By Edward Robinson, D.D., LL.D. 8vo. London. 1852.

Thebes: its Tombs and their Tenants. By A. Henry Rhind.
8vo. London. 1862.

The following were nominated for election at the next
meeting :—

Rev. Joseph Chotzner, Harrow-on-the-Hill.

Charles Compigné, 114, Kennington Park Road, S.E.

Rev. John Gott, D.D., Leeds.

W. R. Harper, Ph.D., Morgan Park, near Chicago, Illinois, U.S.A.

Henry Lumley, 31, St. James's Street, W.

The following were elected Members of the Society :—

Rev. A. Dutau, S.J., 10, Boulevard d'Enfer, Paris.

James Cutcliffe Marshall, Fenton Hall, Stoke-on-Trent.

Claude A. Montefiore, 18, Portman Square, W.

J. Lancaster Ranking, Surgeon-General, Wilford Lodge, Leamington.

Lady Sitwell, Renishaw Hall, Derbyshire.

Geo. Augustus Simcox, M.A., 1, Douro Place, Victoria Road,
Kensington, W.

Dr. H. Clay Trumbull, 725, Chestnut Street, Philadelphia, U.S.A.

The communication entitled "Remarks on Ancient Babylonian Chronology," by F. Delitzsch, was withdrawn by the author.

The Rev. A. Löwy read a paper by Rev. Dr. Placzek, "On Ancient Observations on the Flight of Pigeons."

In an important work (*Midrash Bereshith-rabba*, Ch. 39), the date of which is not later than the sixth century, I met with an observation which, even at that early date, was already received as an ancient opinion, and which bears upon the theory of evolution, more particularly upon the law applying to the variation of species. The fact, as stated in that Midrash, is as follows :—

"All other birds rest from their flight upon a tree or a rock ; but the doves, when weary in their course, alternately keep one wing (expanded) in repose, and sweep along on the other wing."

This passage is adduced as an explanation of Psalm lv, verse 7 (in authorised version, v. 6) : "Oh ! that I had wings like a dove that I might both fly and rest." (אָעופֶה וְאַשְׁכְּנָה.)

This peculiarity of keeping one wing in a state of repose would give to this class of birds in the struggle for life an inestimable advantage, and would inure it to a continuity of rapid flight whereby it could attain its object in the race for finding food, and for escaping from the feathered creatures of prey. This faculty, which is not mentioned in any special monograph, and which remained unknown to breeders of pigeons, appears to have been lost by the doves in the progress of domestication, no scope being left to the further development of the use of a single wing, because man undertook to provide the species both with food and with the care for its defence. The effect of this domestication would then be, that the muscular and osteogenic parts became reduced in force ; for it is a providential arrangement that all creatures lose in the process of time what they do not actually require. This ancient notice I communicated to the late Charles Darwin, in consideration of the great importance which this master of the theory of development assigned in his various works, even to the slightest deviations in the structure and habits of pigeons (see especially the "Variation of Species," 1st chap., 6). In his reply, Darwin expressed a doubt as to the

mechanical possibility of this strange mode of flying.* But to me, the alternating use of the wings on the part of the pigeons did not appear altogether improbable, and I applied to the distinguished physicist in Vienna, Dr. F. J. Pisko. My question was, "Do you consider that the account given of the distinctive process in the flight of the pigeon is compatible with aero-dynamic laws?" I received the following information:—

"I do not believe that pigeons were ever so constructed as to be able to advance in the air by means of the motion of a single wing. Theory and practice are driven hard to indicate how the flight with double wings can be explained, or miserably imitated. This becomes far more difficult when applied to the flapping of a single wing. At the utmost this one-sided action might be conceivable in cases of veering round in a turning motion as is done in rowing. But for this purpose the stern is employed. The purposes of rest would be absolutely unattainable. For, according to the law of the conservation of energy, the process of advancing, and in fact every locomotion, requires an adequate effort, whether the instrument be X or Y. No exertion can be dispensed with unless an equivalent sacrifice be made. An improved mechanism only helps to distribute the work better in regard to time and place. A motion with a single wing is decidedly more awkward than a symmetrical action by one pair or by more than one pair of wings, a fact with which everybody must agree. The phenomenon mentioned in the ancient work under notice was probably either ill-observed or not the result of any ocular perception. The fundamental law of modern mechanics is opposed to any such rest in the air, whilst fatigue must increase owing to the extended wing in repose. In the actual state of rest such a wing droops on the body. To keep the wing extended demands muscular action. Try whether it is not more fatiguing to keep one arm extended and work with the other, than to work with both arms symmetrically."

Not entirely satisfied by the foregoing opinion, I applied to the section for Aeronautical Technology, which is connected with the Austrian Society of Engineers and Architects, by the members of which it was constituted in December, 1880, Professor Charles Jenny being President, and Count Buonaccorsi di Pistoja being Secretary.

* He stated, "It appears to be impossible for a bird to use only one wing, without tumbling over and without losing its balance."

To this areopagus of qualified judges I submitted the present question. At a meeting held on 18th February, 1881, the subject was considered, and I received the following reply: "The flight of birds, not of pigeons only, under the assumption that one wing be immovably extended and the other perform the required movement, is, under certain conditions, on aero-dynamic principles, *not impossible*; for example, at evolutions, at changes of directions, at brief moments of accelerated flight, or of falling. Under ordinary conditions, however, a symmetrical motion is a fundamental factor in this case as in all other cases. A book of the 6th century, treating though incidentally of the circumstances in which natation in the air is performed, would be of great interest to the library of the aeronautical section."

Dr. Placzek contended that the mechanical possibility cannot be denied, that the pigeons, with their vigorous and agile apparatus for flying (one should remember the so-called jongleurs, tumblers, &c.), at one time possessed the distinct aptitude for obtaining rest in their flight, by expanding at some intervals the one wing, and floating along with the other.

The account given in the ancient Jewish record, which contains careful observations on the habits of pigeons, might be considered therefore to rest on true facts, and might furnish evidence for the variations of animals in an instance hitherto not sufficiently noticed.

Remarks were added by the Rev. Canon Beechey, Rev. W. Meade Jones, Rev. W. Wright, D.D., Rev. A. Löwy, and W. Boscawen.

The Secretary read a communication from M. Alexander Enmann, "On the Origin of the Cypriote Syllabary."

The decipherment of the Cypriote inscriptions was undoubtedly a great triumph of philology. Commenced by the late Mr. George Smith, it was pursued by the exertions of English, German, and American scholars. At present a full interpretation has been obtained of these monuments appearing so obscure to the first observers. The language of them turned out to be a Greek dialect, concealed under a strange form of writing. The existence of a syllabary as used by the Greeks is a very curious fact in itself, and it is not to be wondered at that the origin of it has afforded material for a discussion of the most interesting kind between Dr. Deecke and Professor Sayce. The former in an essay ("Der Ursprung der Kyprischen

Sylbenschrift," Strassburg, 1871) asserted the opinion that the Cypriote syllabary was a skilful transformation of characters taken out of the Assyrian cuneiform syllabary. This opinion is partly suggested by the fact that Cyprus was at one time subject to the Assyrian kings. On the other hand, Professor Sayce connected it with the writing of the Hittites, a people the importance of which in the history of ancient civilization can now only be imagined, but will be more clearly unveiled, perhaps, by the ceaseless efforts of Professor Sayce.

A new and highly interesting turn was given to the question when Professor Sayce stated that some of the inscribed objects found by Dr. Schliemann at Hissarlik betrayed an undeniable resemblance to Cypriote characters. His appendix to Dr. Schliemann's *Ilios* has supplied us with a large stock of new explanations. Taking a wider range, he stated that throughout Asia Minor a common syllabary once was in use; finally, he thought that owing to its having taken its origin from the Hittite hieroglyphics, Trojan and Cypriote writing were to be regarded only as branches of a common stock. The next task accordingly will be to trace the genealogy of the different local syllabaries. Writing being one of the chief outcomes of civilization, every research of this kind promises to throw new light on the forgotten civilisations of ancient Asia Minor, and their relations with each other. A particular interest is given by the hope of throwing some light, if it be possible, on the age and nationality of the ancient cities identified with the Troy of Homer. By the following remarks my only wish is to give a modest contribution to these questions, asking by what kind of juncture Cyprus might have been associated with the Troad, in order to effect the use of the same syllabary in either country.

Cilicia being the next part of the mainland, Professor Sayce most naturally thought that the syllabary might be carried from it into Cyprus. Now I venture to call attention to some facts pointing to a much more direct connection between the Troad and that far-distant island. Firstly, Teucer is said by legendary history to have founded the city of Salamis in Cyprus and the dynasty of its kings. The traditions about that hero are very divergent and confused. One conclusion, however, may be very distinctly drawn. Like Romulus and other heroes of the same kind, Teucer has to be considered as a name purposely invented in order to explain the name of a people. He was originally nothing more than an epony-

mical hero of the Teucrian people ; therefore many of the traditions make him a legendary king of Troy. By others he became, in turn, a prince of the Athenian island of Salamis, a son of King Telamon. Evidently this is due to a wrong association of the name of the island with that of the Cypriote town. Explaining identities of name by making the one city a colony of the other, is a reasoning quite familiar to the Greek mind. In fact either of the places called Salamis took its name from a Phœnician root. Notwithstanding its being an error, the tradition in its present shape is equal in age to Greek literature. Already in the *Iliad* Teucer appears as a Greek hero, though the interpolator, yielding to a certain consciousness, made him only an illegitimate son of Telamon (*Il.*, VIII, 284). The mention of Teucer shows with a certain evidence a Cypriote influence on Homeric poetry, which would be confirmed by the old traditions connecting Homer and his poetry with Cyprus. Further investigation has to render more suggestive our attempt to turn a Greek hero into a Trojan king. In full harmony with our presumption is a notice given by Cleonchos of Solve, a Cypriote author of the fourth century B.C. (Müller, "Fragm. Hist. Græc." III, 311, p. 25). At Salamis, he says, there existed an aristocratic class of inhabitants called *Γεργίνοι*, and pretending to be related with the people of the *Γεργίδες*, the latter being, as it is known, a branch of the Teucrian race. But what perhaps is still more deserving attention, is a Cypriote worship as recorded not only by literary testimony but also by that of the inscriptions found in the two sanctuaries of Idalium and Athienu. Casting a look at them, we observe the greater part are dedications to Greek deities, the names of Apollo *Ἀμυκλαῖος* and Apollo *Ῥλάτης* occurring most frequently.

It is not the place here to prove that the two most numerous series of Cypriote statues are not, as has been held by French archæologists, with rather hasty arguments, representations of kings and priests, but simply the offerings themselves alluded to by the dedicatory inscriptions. As Greek *ex-votos* ordinarily consisted of figures of deities, there is no objection to such a statement. Surely a closer inspection would render it almost a certainty, that the two long series of bearded heads, one helmeted, the other crowned with a wreath, ought to represent the two forms of Apollo mentioned above. Now what is most surprising and needful to be explained is the worship in one city and in one temple of two different forms of the same deity. The best explanation would be, as it seems,

to infer a *συνοικισμός*, the union of two populations into one community, both having worshipped its peculiar form of Apollo. Greek colonies used to plant the deities of their metropolis on the newly gained soil. Thus the god of Amyclæ occurring in Cyprus shows the existence of a Peloponnesian colony, as suggested by Herodotus (VII, 90), and confirmed by the close connection between the Cypriote and Arcadian dialects. On the other hand, the worship of Apollo Hylates had its home at Hylæ, a little place of Æolian Asia Minor, in the neighbourhood of Magnesia, on the Mæander. Here, according to Pausanias (IX, 37), was a sacred grotto with an old statue of the god at its entrance. It certainly cannot be a mere coincidence, that two inscriptions of Neo-Paphos (Vogié, IV, 6, 7; Ahrens, 19, 20) contain dedications of a grotto to the same god, called here Ἀπλῶν Ἀγήτωρ Ὑλατῆς. The surname Ἀγήτωρ, like Ἀρχαγέτης, used to be given to deities, especially to Apollo, as a leader of an emigration.

To sum up all the points stated, there is sufficient evidence of a colony from the north-western corner of Asia Minor having passed to Cyprus, probably headed by a member of a Teucride dynasty. Perhaps this dynasty had once ruled in the Troad over a native city, and had afterwards been incorporated with the Greek town aristocracy. At least a similar instance is afforded by the Teucrian towns of Skepsis and Gergis keeping at bay longer than the rest the warlike or peaceable intrusion of the Greeks. Yielding to them at last, the former native kings, under the democratic government, not only preserved certain privileges, but even their royal title (Herod., V, 122; Strabo, p. 607). Presuming in the case under consideration a similar development, it will the better enable us to understand why the Teucrides of Salamis turned their ancestor into a Greek hero, and how they could be surrounded by Γερῶν as an aristocratic class. For in other cities, for instance at Miletus, the Gergithes, on the contrary, formed the body of the lower *demos* (*Athenæus*, XII, p. 523, F.).

As for the date of the settlement in Cyprus, we ought perhaps to look for the destruction of Magnesia by the Cimmerian invaders, or the rebuilding and new establishment of it by Ephesus and Miletus (Strabo), such incidents as those usually effecting emigrations in Greek commonwealths. Both events ought to be relegated to the first ten years of the seventh century. Salamis and its king are named for the first time in the list of King Assarhaddon (B.C. 681-669),



1



2



3



4



4a

but, as it seems, they already were among the Cypriote tributaries of his predecessor, King Sargon (B.C. 704-681). The new settlers perhaps may have seized on the island on the hold of a voluntary submission to Assyria, struggling just then like the new comers against the powerful Phœnician towns. Whatever the cause of Assyrian rule may have been, the dates just pointed out agree not ill with each other, and make attainable a fairly reliable fixed point of Cypriote chronology. While Salamis seems to have been one starting-point of Cypriote Hellenism, another centre arose in the opposite corner of the island, at Paphos. The renown of its sanctuary celebrated in the *Odyssey* points to the great antiquity of this town. Other testimony is borne by the *Iliad*, telling us of a friendship and alliance of Cinyras with Agamemnon (*Il.*, XI, 20). There is no reason whatever to look upon this legendary ancestor of the Paphian kings as a representative of Phœnician rule, though it is held to be so by general opinion. Certainly the clear evidence given by the *Iliad* is much more to be trusted than the mass of contradicting traditions, not one of which dates from a time previous to Alexander the Great. Nor can Cinyras be associated with Phœnicia on account of any doubtful Semitic etymology. By alleging the friendship of Cinyras with Agamemnon, and consequently with Teucer, the poet did not intend anything else but friendly relations between kindred populations. The Cinyrades are kings of the Greek city of Paphos. Their part has to be inferred from that of the Teucrides. Very probably they were leaders of that Peloponnesian colony mentioned above. As these settlers spoke the dialects of the original races of the Peloponnesus, and worshipped the old god of Amyclæ, we do not hesitate to associate the settlement with the tide of colonization issuing from the Peloponnesus after the Spartans had at length conquered the valley of the Eurotas, and Amyclæ, its old capital.

As regards the colony from Asia Minor, it carried into Cyprus the culture of its home. Not only did they import their war-ships, and confer upon the highest peak of the island the very name of the seat of the gods ruling over the plain of the Troad, but they brought with them a still more important element of civilization—a system of writing adapted already to the Greek language. Certainly on the stage of development which the syllabary must have then reached, it may be considered as the standard Greek writing of that age, though its use seems to have been restricted to a small part of the Greek world. Its use in the *Æolis* lasted, as Professor Sayce has sug-

gested, till about B.C. 650, when it was superseded by the more perfectly formed Phœnician-Greek alphabet. The Æolians received the syllabary from their Asiatic neighbours belonging to the large Phrygian race. A curious mention is made of it by Cicero (*De natura Deorum*, III, 42), speaking of *Phrygiæ litteræ*, the inventor of which he calls Heracles. A further trace of the Lycian branch of it may be hidden in the curious passage of Homer (*Il.*, VI, 168). Certainly the meaning of it would be more properly understood as a recollection of some unintelligible system of writing, than a want of the knowledge of writing at all. The syllabary passing to Cyprus, was there preserved by the conservative customs of an insular population till the end of the fourth century B.C. On this account it forms no exception to the whole character of the Cypriote civilization. Political institutions, worship, as well as art, language not excepted, even the fashion of fighting battles, are alike features of the same Greek archaism remaining unaltered for centuries. This want of development may be taken partly as the result of the insular position, and partly on account of the people dwelling at the side of a foreign race. Macedonia may furnish a very similar instance. To look upon Cyprus, that isolated watch-post of Greek colonization—as it has been suggested by archæologists—as a gathering place whence, since olden times, Eastern civilization to a large extent has been brought westward to Greece, would be a very wrong idea of the distinguishing characteristics of Cypriote history. Nor would it be proper to regard this Greek culture as a mixed one, identifying it with the mingled Phœnician civilization. Isolated from the parent stock and the world's commerce, Cyprus does not appear upon the stage of the Hellenic world earlier than the reign of Evagoras and the age of Alexander. Since its expansion and amalgamation it took an important part at the Hellenization of the Eastern monarchies.

MR. BOSCAWEN thought the origin of the Cypriote syllabary must be looked for in the mainland, probably about the Gulf of Antioch, and following Professor Sayce, he had selected about thirty characters, which he thought might be compared with those of the Hittite inscriptions. He was of opinion that there were two great tribes of Hittites, the one in the mountains of the north came down and captured the valleys, Carchemish being a conquest, and not the capital of either division. The form of writing had been, he considered, simplified by the southern race, the characters of the Hamath Stones being, as had already been pointed out by Professor

Sayce, a kind of hieratic form of other known inscriptions from the more northerly districts.

DR. BIRCH differed from M. Enmann as to the statues found in Cyprus; he was of opinion that some were portraits, and not deities; and he thought there was no reason why they should not be representations of kings who were in power at the time the statues were executed.

Cypriote had proved to be a kind of Greek, and so far as he was able to judge, there did not appear to be the slightest similarity between the Cypriote syllabary and that called Hittite, in fact the latter appeared to have been used much in the same manner as the Egyptian hieroglyphics.

Remarks were also added by Mr. Hyde Clarke and Mr. Bouverie-Pusey.

The President made some observations on two Ostraka, or slices of limestone formed for the purpose, inscribed with hieratic inscriptions.

These Ostraka are at present in Queen's College, Oxford, and photographs of them were laid before the meeting. They appear to have been used for drafts of documents before they were copied out fairly. Documents of various kinds have been found on these objects, occasionally copies of literary compositions. Various Ostraka have been published by different Egyptologists. The Ostraka in Queen's College consists of two pieces; the first, or largest of the two, has on one side thirteen lines of hieratic neatly written, and on the other side eleven lines of hieratic, written in a coarser hand.

The subject of the first thirteen lines is an address in the first person, apparently from a god, but is very obscure, and amongst the phrases which occur are the following, which seems to show that it is rather a portion of a composition than an entire separate composition: "I am a chief, the son of a chief. I am the issue proceeding from a god. I am (the one having) many forms; my forms are those of a god,"—showing that the person speaking is probably mythological, while other portions of the inscription seem to refer to the power exercised as mystic or magical.

The second Ostraka, also in hieratic, exhibits the same peculiarities, being well written on one side in a fine hand, which has seven lines, and six lines in a larger and coarser hand on the

reverse. The subject appears to be the issue of certain gifts, or rations of bread, beer, and other things, connected with a festival of Amen Ra. Amongst the things mentioned are four persons, one of whom went on his belly; other offerings are said to have been given to Isis, and mention is made of persons who went to offer.

Photographs of the Ostraka were exhibited, together with some original ones kindly brought to the meeting by Mr. Walter Myers; besides a carefully prepared slip of wood with a Greek inscription.

Remarks were added by Rev. A. Löwy.

Thanks were returned for these communications, and to Mr. Myers for the exhibition of the Ostraka.

The following communication has been received :—

DEAR SIR,

April 9th, 1883.

In an interesting letter in the *Proceedings* for 6th June, 1882, in which Mr. Pinches discusses the Akkadian numerals, he says: "The word for 'five,' *â*, is well established, and is evidently the same as the word for 'hand,' 'fist,' or 'horn,' expressed by the sign , to which the bilingual lists give the gloss *a*;" and further: "The *âš*, used to express the number six, is, it will be noticed, the same as one form of the numeral for 'one.' This word is probably formed, however, by combining the two numerals 'five,' *â*, and 'one,' *aš*, so that the distinction was made by pronouncing the vowel long."

It seems to me that a consideration of the origin of the method of counting employed may shed some additional light on both these words. The human body furnished the original units of measurement, as we still see plainly enough in our own language, to go no further, from such words as foot, ell, hand, finger, &c. So, also, as Mr. Pinches recognizes in his remarks on the numeral "five," the human body furnished in the hands the original counting-board. Two methods of using this counting-board have given rise to the two great systems of reckoning, the decimal and the duodecimal. Counting the fingers of one hand gives us five, the use of which, as the unit of reckoning, seems to be the first step towards the decimal system. The substitution of ten for five by the inclusion of the fingers on the other hand, gives that system complete. Similarly, with the duodecimal system, the first stage of development was the counting by sixes. Of this stage we find many curious marks in Assyrian and Babylonian,

taken, I suppose, from the Akkadian. So we have 1 $\text{\text{kanu}}$ = 6 $\text{\text{ammâti}}$, 1 talent = 6 $\text{\text{minæ}}$, 1 sar = 6 $\text{\text{ner}}$, &c. On the other hand, in reckoning larger amounts, instead of developing their seximal into a duodecimal system, they appear to have combined the seximal and decimal to form a sexagesimal system, as, for example, 1 $\text{\text{soas}}$ = 60, 1 $\text{\text{ner}}$ = 600, the division of a mina into sixty parts, &c. The "six" of these systems was, as I believe, like the "five" of the semi-decimal system, obtained by finger-counting, only in the one case the fingers were counted inclusive of the hand as a whole, and in the other case exclusive.

Mr. Pinches speaks of the sign  as meaning "hand," "fist," or "horn." I should like to ask if the meaning "fist" is correct. We have that sign meaning apparently "hand," as the seat of power of the man, as the horn is of cattle. We have it used also in the same sense as we use "hand" or "side" in such expressions as "at his right hand," "by his side." But does that justify the meaning "fist?" Naturally the meaning best suited to the theory with reference to counting which I have suggested would be "the outspread hand," which would also best harmonize with the appearance of the sign in question, provided we are to seek for it a hieroglyphic origin; at the same time the meaning "fist" cannot be said to contradict my theory. If $\hat{a}$, "five," meant "the outspread hand," it would be as though they counted from a closed hand on until all the fingers were spread out, and then closed them in order to count the whole hand as a sixth.

As to the numeral six, $\hat{a}\hat{s}$, for which Mr. Pinches suggests a combination of $\hat{a}$, "five," and $\hat{a}\hat{s}$, "one;" supposing that the $\hat{a}$ is, as he suggests, to be regarded as long, is it not possible that it was a mere differentiation of $\hat{a}\hat{s}$, "one," for the purpose of distinguishing the greater from the lesser unit? In decimal counting we have two units, the absolute or universal unit, "one," and the decimal unit, or unit of the system, "ten." So in seximal counting we have two units, "one" and "six." Perhaps, again, the $\hat{a}$ is not to be regarded as long, and $\hat{a}\hat{s}$ is the same for "one" and for "six," that is, for both the units. In connection with this last suggestion observe, moreover that the sign ($\text{\text{Y}}$) for the sexagesimal unit "sixty," is the same as that for the absolute unit, "one."

JOHN P. PETERS.

The following communication has been received :—

MY DEAR MR. RYLANDS,

PARIS, *April 29th*, 1883.

I must apologise for not having yet fulfilled my promise to you. I have often thought of sending a little note for the Society, and hope soon to be able to do so, but regret to say that the condition of my eyes prevents at present my doing any work by artificial light.

I have only received one cast of the Hittite inscriptions of the Vatican, and this one is extremely imperfect, but I expect a better one, and when it arrives shall be glad to communicate it to you.

I have read with great pleasure the articles by Mr. Pinches, which contain much that is very instructive. He has at his disposal in the British Museum a great deal of new and important matter. The tablets of Artaxerxes, published in the April number of the *Proceedings*, are of great interest ; the “unknown” characters are, I venture to say, a kind of cursive Persian writing, and the name may be a Persian one. Several of the characters look like our Zendic characters, some others resemble Georgian, and one or two show Phœnician forms.

One or two points in the translation by Mr. Pinches seem to require alteration. The translation given “refined silver,” cannot, I think, be explained by any Semitic root.* In the work *Documens Juridiques*, p. 283, the same words used in texts of the Achæmenian period—*kašpu qatū*—I proved the translation to be “coined silver,” from קלע, which has the meaning to engrave or sculpture. In the time of the Persians silver coins were already in existence in Babylon, and the expression used in the tablet refers to 68 drachmas in silver coins.

The characters “flesh,” “loin,” “arms,” do not signify that the slave was branded or marked with the name of one of the sellers. It merely indicates that the female slave belonged, in body, legs, and arms, to the one named *E-sagilli-lilbir*. The slave, in case of sale and similar circumstances, was the property *ab indiviso* of the three persons, but was the mistress of the third, who enjoyed a sort of tenancy.

* The root קלה, from which our “alkali” is derived, signifies “to fry,” which cannot, I think, be applied to silver.

The servant is *amat muti*, not as translated by Mr. Pinches, "the men's slave," which appears to be a superfluous sentence, but she is "the servant of the husband"—that is, a concubine.

The words *maḥru edinū* do not, I consider, mean "have received," but on the contrary, "have paid and have made (the purchase) perfect." The seller had not given the money and the slave, but had handed the *receipt* (𐎶𐎵 𐎶𐎵 𐎶𐎵)* or the *sibir* (the שִׁבִּיר of the Hebrew) over to Urmanū. I cannot help thinking that the characters read by Mr. Pinches 𐎶𐎵 𐎶𐎵 𐎶𐎵, a form I have not before met with, ought to be understood as above, and following the translation I gave (*Journal Asiatique*, 1880, June), be read "receipt."

The words *nadin nisu lut-tim* (l. 4 and 14) do not, I think, mean "the slave-dealer," but refer to the "seller who has in his possession the object sold."

Lastly, *ina yuma paqari* (l. 11) cannot, in my opinion, mean "the day of claim," made by the sellers, who have no claim to raise, although it is in their power to provoke the annulling of the agreement. This is the sense of *paqar* פָּקַר, in a number of Babylonian contracts, where *paqirānu* evidently denotes the former owner. In the Michaux Stone, *ana paqri la rasē* signifies "in order not to permit an eviction." In this case the contract may have provided for the annulment of the purchase for a *ostium redhibitorium* on account of an essential defect, for which the new owner would be authorised to rescind the contract.

Here is the translation which I propose:—

"E-saggil-lissi, son of Nabu-kušursu, Bel-ballitsu, son of Nidintu, and Ina E-saggil-lilbir, son of Bel-ederu, have in the free will of their mind, sold Istar-Babil-siminni,† their servant, who by body, loins, and arms, is addicted to the person of Ina-Esagil-lilbir, seller and tenant, son of Belederu, for 1 mina 8 drachmas in coined silver, the complete price made out, to Urmanū, son of Lisir.

"The receipt of 1 mina 8 drachmas in coined silver,‡ price of

* It cannot, I think, be *kaspu*, but an equivalent of 𐎶𐎵 𐎶𐎵 𐎶𐎵, a form often occurring in these contract tablets. I should like to see there *kašp sal*, "the price of the woman," but the sense would be against this reading.

† Although Nana was one of the goddesses of Babylon, the text gives Istar. I read *siminni*, for the reading *sininni*, very correctly read by Mr. Pinches, gives no sense. The character, besides *nin*, may have the sound of *min*. The sense of the female name may be, "Istar of Babylon, hear me."

‡ £5 2s. of English money; if it should be the double mina, £10 4s.

Istar Babil-siminni, the servant-concubine, E-saggil-lissi, Bel-ballitsu, and Ina-Esaggil-lilbir, have given it into the hands of Urmanū, and have made [the purchase] perfect.

“If a rescinding action on the subject of Istar-Babil-siminni, the servant-concubine, should be successful,* Esaggil-lissi, Bel-ballitsu, and Ina-Esaggil-lilbir, the seller and tenant, will lose the selling sum and give it back to Urmanū.

“Assessors: Bel-yupahhir, son of Bel-ballitsu; Bel-nadin, son of Iqubu [Jacob]; Nabu-iddanu, son of Nabu-Callitsu; Sua [Trib-habal, or Zumriya], son of Nadin; Nabu-ballitsu, son of Umas; Bel-esses, son of Samsaï.”

Here occurs a name in the unknown characters.

“Bel-banū, the actuary, son of Nabu-lusesi.

“Babylon, month of Adar, 11th day of the 23rd year of Artaxerxes,† king of the countries.”

Believe me,

Yours most sincerely,

J. OPPERT.

The following communication has been received from Dr. Birch:—

OSTRAKA OF THE REIGNS OF NERVA AND TRAJAN.

After the Cæsars the number of dated ostraka of the period of the Antonines, commencing from Nerva, becomes more numerous. Those of the reign of Trajan are especially so, and offer fresh points of interest. They are, however, often very difficult to read. It will, however, perhaps facilitate future inquirers, who can afterwards complete the series. M. Fröhner, to whom I have alluded in my former notice, has published some of Trajan in the *Revue Archéologique*, new series, Vol. XI, p. 425 and following, some of which had been published by Young and Franz. The taxation continued much the same in the reigns of Trajan, generally, however, increasing for the poll

* Because she might be weak, sick, enceinte, or for any other reason. It is not expressly said that in that case the woman should be given back also; it may be that she remained in the possession of Urmanū.

† 442 B.C.

or capitation-tax. The contractions, also, are similar, as υ for $\upsilon\pi\epsilon\rho$; χ , χ^o for $\chi\epsilon\iota\rho\alpha\chi\iota\omicron\upsilon$; λ , $\lambda\omicron\gamma$ for $\lambda\omicron\gamma\omicron\upsilon$; $\alpha\rho\gamma$ for $\alpha\rho\gamma\upsilon\rho\iota\omicron\upsilon$ $\pi\rho\alpha$, $\pi\rho\alpha^k$ for $\pi\rho\acute{\alpha}\kappa\tau\eta\rho$ or $\pi\rho\acute{\alpha}\kappa\tau\omega\rho$; μ , $\mu\eta^T$ for $\mu\eta\tau\rho\alpha\varsigma$; μ^o for $\mu\epsilon\rho\acute{\iota}\sigma\mu\omicron\upsilon$; ϵ for $\epsilon\epsilon\iota$; ζ or a cipher like β for $\epsilon\rho\acute{\alpha}\chi\mu\epsilon\iota$. It will be observed that the $\pi\omicron\tau\alpha\mu\omicron\phi\upsilon\lambda\acute{\alpha}\kappa\iota\alpha$, or conservancy of the river, is mentioned in these reigns. The following are in the British Museum:—

Παπυρίς Παπυρεός
 λινωπώλ δευτέρου Ι
 Νερόνα Καίσαρος του κυρίου
 επί λο' τέσσαρες ζ δ
 δ αυτος τας λοιπας του Α Ι
 ζ οκτω β η Ερμογενής
 πρ^ακ^ε εγραψα 5790 ω .

“Papyris, son of Papyris, a linendraper, for the 2nd year of Nerva Cæsar the lord, 4 (drachmas) on account he owes the remaining eight of the 1st year. I Hermogenes the collector have written it.”

This tile is of A.D. 97–8.

Διεγραψ̄ Πετ ευρ̄
 Α Ι Τραϊανον
 αρ' L ιβ̄
 Ερμογεν 5819 ϵ .

“Peteur has paid for the 1st year of Trajan 12 (drachmas) of silver. I Hermogenes have written it.”

Another receipt for the “capitation-tax” paid by Harpaesis, son of Zmethis, has been published by Young, Hier., pl. 54, 15, and Franzius, in Boeckh. Corp. Inscr., No. 48–64. This tile, of A.D. 98, is very imperfect; the name of the ratepayer may be Papyris.

Αμμωνιος Πετορ
 ζμηθον πρ̄ διεγραψ̄
 Παχνουβις Φενωφεις
 μ^Τ ταχομτ̄θηκιο^ς ῡ
 ποταμοφυλ^α μερισμ^{ον} ζ β
 s Τραιανον Καίσαρος
 του κυριου Επιφ̄ ιθ̄
 Αμμωνιος ζ β 5791 ι .

“Ammonius, son of Petorzmethes, collector Pachnoubis, son of Phenopheus, whose mother is Thinpelia, has paid on account of the poll-tax assessment, 2 drachmas, the year of Trajan Cæsar, the lord, the 19th of Epiphi. Ammonius has written it.”

The word after $\mu\epsilon\rho\acute{\iota}\sigma\mu\omicron\upsilon$ may possibly be a contraction for drachmas. The date is A.D. 99–100.

Διεγραψ̃ Πατροςζμη⁹ Φενωφ̃εος
 ὅ λαογραφ̃ β Ι Τραειανου
 Καισαρος του κυριου αρ̃ ζιζ
 Ερμογενης Αμμωνα^τ πρα^κ
 εγραψα

5791 ν.

“Patroszmethis, son of Phenopheus, has paid for the poll-tax of the 2nd year of Trajan Cæsar, the lord, 17 (drachmas) of silver. I Hermogenes, son of Ammonates, the collector, have written it.”

The date is A.D. 99-100.

Διονυσιος και σ και Πεχ^ωθ πρα^κ
 αργυριου δια Πανυ^θ διεγρ̃ Πετορζμηθ
 ης Παμμωνα^τ Φενωφ̃ιος μ⁹ δραχμας κ
 τριτου ε Τραειανου Καισαρος
 αριστου του κυριου Φαμενωθ̃ κ̃

5790 ω.

“Dionysius and and Pechmonthes, collectors of silver by Panubtis. Petorzmethes, son of Pammonates, son of Phenophis, has paid for the assessment, 20 drachmas, of the 3rd year of Trajan Cæsar, the most excellent lord, the 20th Phamenoth.”

This tile is of A.D. 101. It is the earliest appearance of the translation of Optimus Princeps, which first appears on the coins A.D. 106.

Αρπαησις Φενωφ̃εος θιν
 ὅ λαογραφ̃ Γ Ι Τραειανου
 του κυριου επι λο⁹ ζθ
 Ερμογενης

5791 η.

“Harpaesis, son of Phenopheus, (and) Thinpelia, on account of the poll-tax of the 3rd year of Trajan, on account, 9 (drachmas). Hermogenes.”

Hermogenes is the name of the collector. The tile, as the preceding, is A.D. 101-102.

Διεγραψ̃ Πατροςζμηθ Πεταιουπαιαι
 ὅ λαογραφ̃ τριτου Ι Τραιανου
 του κυριου επι λο⁹ δεκα δυω βιθ̃
 εχω ομοιως τας λυπας ζ ε
 δια Νιγερατος

5790 κ.

“Patroszmethes, son of Petaioupaias, has acquitted for the poll-tax of the 3rd year of Trajan, the lord, on account, 12 drachmas. I have also the remaining 5 by Nigeras or Niger.”

The date is about A.D. 102.

Here, as elsewhere, λυπας for λοιπας.

Διεγραψ̃ Παπυρις Παπυρι^{ος}
 λινοπωλης ὃ λαογραφ̃
 τεταρτου L Τραιανου
 του κυριου τας λυπ 4θ
 Ερμογενης εγραψα

5790 m.

“Papyris, son of Papyris, the linendraper, has acquitted for the poll-tax of the 4th year of Trajan, the lord, the remaining 9 drachmas. I Hermogenes have written it.”

Πετορζμη^θ Πεταιου
 ὃ λαογραφ̃ τεταρτου L
 Τραιανου του κυριου
 επι λογ̃ οκτω β ἡ
 διεγραψε τεσσαρας β δ
 αυτος τας λυπας ε
 Ερμογενης πρα^κ
 εγραψα

5790 y.

“Petorzmethis, son of Petaioupaias, for the poll-tax of the 4th year of Trajan, the lord, on account, 8 (drachmas); he has paid 4; he owes the rest. I Hermogenes, the collector, have written this.”

This tile is of A.D. 101-102.

Αρπησις Θρακιδας
 ὃ λαογραφ̃ τεταρτου
 L Τραιανου του κυριου
 επι λογ̃ οκτω 4 η
 ομοιως οκτω β η
 δ αυτος τας λυπας α
 Ερμογενης πρα^κ
 εγραψα

5788 f.

“Harpaesis, son of Thrakis, for the poll-tax of the 4th year of Trajan, the lord, on account, 8 (drachmas), likewise 8 drachmas he owes the rest one. I Hermogenes, the collector, have written it.”

Harpaesis still appears to have owed 1 drachma, probably mentioned in the sixth line. The form Θρακιδας on some ostraka appears as Θρακιδος, so that the name of the mother may be Thrakis.

This tile is illegible in parts, and is of the same date as the preceding.

Διεγραψ̃ Παπυρις Παπυρ^ς
 ὃ χ^ο E L Τραιανου
 του κυριου επι λαγ̃ δ

5790 t.

“Papyris, son of Papyrus, on account of the workman’s-tax, the 5th year of Trajan, the lord, on account, 4 drachmas.”

This is of A.D. 102-103.

Δ εγραψ̃ Παχνουβις Θρακιδος
 ὅ λαογραφ̃ πεμτου Ι
 Τραειανου του κυριου
 δραχμας οκτω ζη ὅ επικαρσιου
 ομοιως τρις ζη δ αυτος
 τας λυπας ζη Ερμογενης
 πριμ^κ εγραψα

5790 m.

“Pachnoubis, son of Thrakis, has paid for the poll-tax of the 5th year of Trajan, 8 drachmas, and for the indirect likewise three ζ 8, and he owes the remaining 3. I Hermogenes, the collector, have written it.”

This tile is of the same date as the preceding.

Διεγραψ̃ Παπυρις Παπυρ^υ λινοπωλ
 ὅ λαογραφ̃ πεμτου Ι
 Τραειανου Καισαρος του
 κυριου δρα^ς οκτω ζη
 δει αυτος τας λυπας ζη ὅ
 Ερμογενης πριμ^κ
 εγραψα

5790 g.

“Papyris, son of Papyrus, the linendraper, has paid for the poll-tax of the 5th year of Trajan, the lord, 8 drachmas, and he owes the remaining 9. I Hermogenes, the collector, have written it.”

This tile is A.D. 103-104.

Διεγραψ̃ Παπυρις Παπυρ^ς
 ὅ χ^ο Ε Λ Τραειανου
 το κυριου επι λογ ζη δ

5790 r.

“Papyris, son of Papyris, for the workman's tax of the 5th year of Trajan, the lord, has paid on account 4 drachmas.”

Of the same date as the preceding.

Διεγραψ̃ Πετροσμηθ Παχομ . .
 ται . . ὅ λαογραφ̃
 εκτου Ι Τραειανου
 Καισαρος του κυριου
 επι λ οκτω ζη

5790 a.

“Petrosmethes, son of Pachontbekis (?), has paid for the poll-tax of the 6th year of Trajan Cæsar, the lord, on account, 3 drachmas.”

This tile is of A.D. 105-106.

Διεγραψ̃ α
 Ξ λαογραφ̃ εκτου L
 Τραιανου Καισαρος του κυριου
 επι λ οκτω β η Επιφ ιη
 δ αυτος τας λυπας εννεα ζ θ
 Ερμογενης πρ̃α εγραψα
 Μεσορη κς 5791 s.

“ has acquitted for the poll-tax of the 6th year of Trajan Cæsar, the lord, 8 drachmas of silver, the 18th Epiphi 9 drachmas ; he owes the remaining. I Hermogenes, the collector, have written, the 27th Mesore.”

This tile is of A.D. 104-105.

Διεγραψ̃ Πετροσζμηθ Φενωφς Θρακις
 Ξ λαογραφ̃ εβδομου L
 Τραιανου Καισαρος του
 κυριου επι λογ̃ ζ οκτω Μεσωρη λ
 . . αυτος τας λυπας εννεα θ
 και Ξ αν^α τριοβολ Ερμογενης πρ̃α^κ
 εγραψα 5790 n.

“ Petroszmethes, son of Phenophis, of Thrakis, has acquitted for the poll-tax of the 7th year of Trajan Cæsar, the lord, on account, 8 drachmas, the 30th Mesore ; he owes the remaining 9, and for registration 3 obols. I Hermogenes, the collector, have written it.”

This tile is of A.D. 106.

Διεγραψ̃ Αρπασις Φενωφεις Θρακιδς
 Ξ λαογραφ̃ εβδομου L
 Τραιανου Καισαρος του
 κυριου επι λογ̃ ζ η
 αυτος τας λυπας ζ θ
 Ερμογενης πρ̃α^κ εγραψα 5790 o.

“ Harpaesis, son of Phenophis, son of Thrakis, has paid for the poll-tax of the 7th year of Trajan Cæsar, the lord, on account, 8 drachmas ; he owes the remaining 9. I Hermogenes, the collector, have written it.”

This of A.D. 105-106.

Διεγραψ̄ Καλασιρις
 Ξ λαογραφ̄ εἰδομον L
 Τραιανου Καيسαρος του
 κυριου ἀρ' δεκα επτα ζ ι ζ
 και Ξ αναγραφης τριοβολον ζ
 Ερμογενης πρα^κ εγραψα
 Μεσορη ι θ

Tile belonging to Aquila Dodgson, Esq.

“Calasiris has paid for the poll-tax of the 7th year of Trajan Cæsar, the lord, 17 drachmas of silver and three obols for registration. I Hermogenes, the collector, have written it, 19th Mesore.”

This tile is of the same date.

As he had paid the full amount, the registration could hardly have been for any deficiency or record of the amount owing.

Αμμωνιος Αμμωνα^τ κ Διονυσιος πρα^κ
 ιεῖρ πλ Σοηνης διεγραψ̄ Παχνουβις Φενω
 φεως μ Ταχομτβηκισ μερισ μην
 ζα δραχμην L II Τραιανου αριστου
 του κυριου Μεσορι ιᾱ

5790 L.

“Ammonios, son of Ammonates, and Dionysios, collectors of the sacred gate of Syene. Pachnoubis, son of Phenopheus, and of his mother Tachombekis, has paid one rate, 1 drachma, for the 8th year of Trajan, the best lord, the 11th of the month Mesore.”

This is the tile on which the title of Optimus Princeps appears in a Greek form. As Trajan ascended in A.D. 98, the tile must be A.D. 105, but the Roman coins do not bear it till his 10th tribuneship, or A.D. 108. It appears however to be supposed that the coins on which it first appears may be A.D. 106.

Διεγραψ̄ Πετοσιρις Πετοσιριος λινοπω^λ
 Ξ λαογραφ̄ εἰδομον L Τραιανου
 Καيسαρος του κυριου ἀρ' ζ δεκα επ
 τα ζ ις κα Ξ αναγραφ̄ τριοβολ
 Ερμογενης Αμμωνα^τ πρα^κ
 εγραψ̄ L θ Τραιανου Καισαρ
 ος του κυριου Αθουρ ε̄

5790 a.

“Petosiris, son of Petosiris, linendraper, has acquitted for the poll-tax the 7th year of Trajan Cæsar, the lord, 17 drachmas, and for registration 3 obols. I Hermogenes, son of Ammonates, the collector, have written it, the 9th year of Trajan Cæsar, the lord, the 2nd of Athyr.”

Another of a later date, A.D. 107-108.

Διεγραψ̄ Πετορζμιθ̄ Πετορ . . .
 ὃ λαογραφ̄ ογδῶον L Τρ
 Καίσαρος του κυρίου ἀρ'
 ζιζ̄ συν αὐς ἐσχ̄ χειρον̄ς
 Ἀμμονα^Τ πρακ̄ ἐγραψα
 Μεσῶρη λ

5790 s.

“Petorzmithes, son of Petorzmithes, for the poll-tax of the 8th year of Trajan Cæsar, the lord, 17 drachmas of silver, with those I hold of the workman's-tax I Ammonates, the collector, have written it, on the 30th Mesore.” The word after ἐσχ̄ uncertain.

A.D. 106-107.

Διεγραψ̄ Παπυρις Παπυρ^Ο λινοπωλ̄
 ὃ λαογραφ̄ ογδῶον L
 Τραϊανου Καίσαρος του κυριου
 ἀρ' δεκα ἐπτα ζιζ̄ συν αὐς ἐχω
 προτεραις Ἑρμογενῆς Ἀμμων^Τ
 πριμ^Κ ἐγραψα Μεσῶρη ιθ̄

5788 c.

“Papyris, son of Papyrus, the linendraper, has acquitted for the poll-tax of the 8th year of Trajan Cæsar, the lord, 17 drachmas, with the former ones I have. I Hermogenes, son of Ammonates, the collector, have written it, the 18th Mesore.”

The expression in the fourth line appears to be ἀρ', for ἀργύριον (of silver), used for drachmas, although ἄριστον suggests itself as a title of Trajan. It is of the same date.

. . . ροζμηθ̄ Φενωφείος Θρα^ς
 θ̄ Τραϊανου του
 Ἑρμογενῆς
 ατ̄ ἐγραψα

5788 b.

“Petroszmetes, son of Phenophis, son of Thrakis (or Thrakeda), the 9th year of Trajan, the lord. I Hermogenes, son of Ammonates, have written it.”

A.D. 107-108.

Διεγραψ̄ Ἀρπαῖσις Φενωφίος
 Θρα^ς ὃ λαογραφ̄ Θ L
 Τραϊανου του κυριου
 ἐπι λογ̄ ἥ Φχαντιμο
 κιναιοις

5788 e.

“Harpaesis, son of Phenophis and Thrakis, has paid for the poll-tax of the 9th year of Trajan, the lord, on account, 8 (drachmas). I Phchantimokinaois have written it.”

Of the same date, A.D. 107-108.

Οταλεριον και οι λοι μια^θ ιερ
 πυλης Συνηης δια Σερα γρ̄
 διεγραψ̄ Αρπαησις Φενωφε
 ως μη^τ Τυχοντση(κ)ως
 λῶ Θ Λ Τραιανου αριστον
 του κυριου δρα^κ δεκα
 . . τα Επειφ ιβ̄

5791 f.

“Valerion and the other farmers of taxes of the sacred gate of Syene, by Serapion writing it. Harpaesis, son of Phenopheus and his mother Tachontbekis, has paid for the poll-tax of the 9th year of Trajan, the best lord, 17 drachmas, the 12th of the month Epiphi.”

This is another tile on which the epithet of Optimus Princeps assumed by Trajan appears. The *μισθωταί* were not mercenaries or persons hired to collect the taxes, but the company who farmed them. The mother of Harpaesis was Tachontbex or Tachontbekis.

Same date.

Διεγραψ̄ Αρπαησις Φενωφι^ς Θρακι^ς
 ῡ χειροναξιου ενατου Ι
 Τραιανου Καισαρος του κυριου
 τας λυπας 4 τεσσαρες βδ
 Ερμογενης Αμμονα^τ πρα^κ
 εγραψα δια Απολινυριου
 ΙΙ Τραιανου Καισυρος
 του κυριου Φαμενωθ κβ̄

Brit. Mus.

“Arpaesis, son of Phenophis and Thrakis, has paid for the workman's-tax of the 9th year of Trajan Cæsar, the lord, the remaining 4 (drachmas). I Hermogenes, son of Ammonates, the collector, have written it, by Apollinarius, the 10th year of Trajan Cæsar, the lord, the 22nd day of Phamenoth.”

Same date.

Διεγραψ̄ Αρπαησις φενωφι^ς Θρακι^ς
 ῡ χ ενδεκατου Ι
 Τραιανου Καισαρος του κυριου
 αρ δεκα 4 ιθ Ερμογενης
 Αμμωνατης εγραψα

5790 b.

“Harpaesis, son of Phenopheus (and) of Thrakis, has acquitted for the workman's-tax of the 11th year of Trajan Cæsar, the best lord, 19 drachmas of silver. I Hermogenes, son of Ammonates, have written it.”

The cipher gives 19, so the missing word must be *ἑννecx* or 9. It is of A.D. 109-110.

Πελαιδετης Μνησι . . . ταιρικου
 Θιψανσνουτι Ταχομτθικis χ
 απεχω παρα σου λοιπων
 του ΙΔL Τραιανιου
 Καισαρος του κυριου
 δραχμην μιαν
 Παουνι θ

5790 z.

“Pelaidetes, son of Mnesietairikos, to Thipsanous, son of Tachomtbekis, greeting. I have from you of the remainder of the 14th year of Trajan Cæsar, the lord, 1 drachma, the 9th of Payni.”

A.D. 112.

Διεγραψ Παχνουβis
 Φανωφεως μη^τ Ταχομτθικως
 υ λασογραφ του ΙΕL Τρηειανου
 του κυριου δραχ δεκα επτα και
 ν δι μερισμ^ο . . . δραχ δυω χο ζιζ ε
 LIE Τραιανου του κυριου Μεκ̃ ιθ
 δ Λευκι Αυρηλι επιτηρ

5791 z.

“Pachnoubis, son of Phanopheus and of (his) mother Tachomtbekis, for the poll-tax of the 15th year of Trajan, the lord, 17 drachmas, for registration, 12 (chalchoi), 17 for second assessment the workman’s-tax of 15th year of Trajan, the lord, the 19th day of Mecheir, by (the hand) of Lucius Aurelius, the surveyor of taxes.”

This is one of the most interesting of the tiles; the *αναγραφη* mentioned in the 5th line is the registration of non-payment, for which a few obols were charged, the *δεκα δυω*, or twelve, may refer to as many drachmas of the *χ^ο* or *χειροναξιον*, workman’s-tax; it is followed by *χ*, and the cipher is only 7. A.D. 113-114.

Υιβ . . . υ Αυρηλιου . . .

 σα διεγρ Πετορζμηθis Παχομ
 τθικ^ς υ λασογραφι με^{ρις} ΙΕL δραχ
 δεκα πεντε οβολ πεντε διεγρα
 . . . υ χ^ν LIZ Τραιανου κυριου
 Τυβι ιβ
 in a smaller hand . . αχ δεκα πεντε
 οβολους πεντε

5790 z.

“. . . son of Aurelius, Petorzmethis, son of Pachomtbekis, for the assessment of poll-tax and for the 15th year, 15 drachmas 5 oboli, has acquitted for the workman’s-tax of the 16th year of Trajan, the lord . . . the 12th of Tybi;” and, in a smaller hand: “15 drachmas 5 oboli.”

A.D. 113-114.

Διεγραψεν Παχνουμις Παχομ
 παρσημαχθως μ̄ Ταχομτβηκισ
 ὅ λασ' ΙΗΛ Τραιανου Φ' ιρ
 μοντι δ̄ δραχμ̄ τεσσαρες Παχων κ̄β
 δραχμ̄ τεσσαρες Παννι κθ δραχμ̄
 τεσσαρες Επιφι θ̄ δραχμας δυω
 Μεσορη β̄ δραχμας δυω ιτ
 Διδυμιων . . . εγρ ι' δ̄ αλλας
 δραχμ̄ μιαν ῡ δευτ μ^ο ις ᾱ μερισ
 μου ζ̄ κ = δ̄ Σεραπαπιωνος 5790 η.

Pachnoumis, son of Pachompabeachthis and of Tachombekis, has paid for the poll-tax of the 18th year of Trajan, the 4th of Pharmuthi, 4 drachmas, 4 drachmas the 24th Pachon, 4 drachmas the 29th Payni, 4 drachmas the 9th Epiphi, 2 drachmas the 2nd Messori, 2 drachmas, 16 drachmas. Didymion has written, 19th year; he owes other drachmas 1. Two of the assessment . . . 1 of the 2nd assessment by Serapion."

A.D. 116-117.

Διδυμων πρακ̄ αρ'
 διεγραψε Αρπαησις Πανω
 β̄δισ μ^ς Ταχομτβηκισ
 ὅ λασγραφ̄ εκνεα και δεκα του Ι
 Τραιανου αριστου του κυριου
 δραχ̄ οκτω ζ̄ η̄ ὁ . . . β̄
 Φαμενωθ κ̄α
 δ̄ λυπις δριμ̄
 οκτω ζ̄ η̄ 5790 f.

"Didymon, the collector of silver, Harpaesis, son of Panobdis, of his mother Tachombekis, has paid on account of the poll-tax for the 19th year of Trajan, the best lord, 8 drachmas, . . . obols, the 21st Phamenoth, he owes the remaining 8 drachmas."

A.D. 117-118.

Απολλωνιος Αρσαησιος
 Τραιανου του κυριου
 ζ̄ Tile, Brit. Mus.

"Apollonius, son of Harsaesis, of Trajan, the lord, . . drachmas."

This is a mere memorandum, date and number of drachmas wanting.

DEAR MR. RYLANDS,

21st April, 1883.

The strange mythological figures which are designed upon the Egyptian papyrus with which you were occupied when I last saw you reminded me, as I told you, of some pictures in one of the chambers on the terrace of the temple of Dendera. These pictures, which will be found in the fourth volume of Mariette's great work, are taken from the 149th chapter of the Book of the Dead, and are accompanied by a short explanatory text, which is noteworthy as everywhere transcribing the pronoun  *tui*, by what M. Chabas would call the "singularité graphique"  *uti*. This, like many of the "singularités graphiques," is simply an ignorant blunder.

Far more interesting is the presence in this text (pl. 83) of a compound preposition which I do not remember to have seen noted. The

ninth *âat*  is said to be           *šeta-tu er nuteru sentu-*
nes xu t'er-âpu nutâr pfi āa šeps em suhit-ef, "a mystery to the gods,
which all spirits fear except that great and venerable god in his egg,"

f. Todt., 149, 35. Here the expression for "except" is    *t'er âpu*, instead of the usual   *âpu her*.

I am, faithfully yours,

P. LE P. RENOUF.

The next meeting of the Society will be held at 9, Conduit Street, Hanover Square, W., on Tuesday, June 5th, 1883, at 8 p.m., when the following Paper will be read:—

By REV. A. LÖWY:—"Underground Structures in Biblical Lands."

Miscellaneous Communications.

THE FOLLOWING BOOKS ARE REQUIRED FOR THE
LIBRARY OF THE SOCIETY.

- BOTTA, Monuments de Ninive. 5 vols., folio. 1847-1850.
PLACE, Ninive et l'Assyrie, 1866-1869. 3 vols., folio.
BRUGSCH-BEY, Grammaire Démotique. 1 vol., folio.
————— Geographische Inschriften Altaegyptische Denkmaeler.
Vols. I—III (Brugsch).
————— Recueil de Monuments Égyptiens, copiés sur lieux et
publiés par H. Brugsch et J. Dümichen. (4 vols., and
the text by Dümichen of vols. 3 and 4.)
DÜMICHEN, Historische Inschriften, &c., 1st series, 1867.
————— 2nd series, 1869.
————— Altaegyptische Kalender-Inschriften, 1866.
————— Tempel-Inschriften, 1862. 2 vols., folio.
GOLENISCHEFF, Die Metternichstele. Folio, 1877.
LEPSIUS, Nubian Grammar, &c., 1880.
———— Königsbuch der Alten Aegypter. 4to., 1858.
DE ROUGÉ, Études Égyptologiques. 13 vols., complete to 1880.
WRIGHT, Arabic Grammar and Chrestomathy.
SCHROEDER, Die Phönizische Sprache.
HAUPT, Die Sumerischen Familiengesetze.
SCHRADER, Die Keilinschriften und das Alte Testament. 1872.
RAWLINSON, CANON, 6th and 7th Ancient Monarchies.
———— History of Egypt. 2 vols. 1882.
OSBURN, The Antiquities of Egypt. 8vo., 1841.
ROBINSON, Biblical Researches. 8vo., 1841.
PIERRET, Dictionnaire d'Archéologie Égyptienne. 8vo. Paris, 1875.
BURKHARDT, Eastern Travels.
WILKINSON, Materia Hieroglyphica. Malta, 1824-30. (*Text only.*)
CHABAS, Mélanges Égyptologiques. 1862-1873.
———— L'Égyptologie. Tomes I and II, 1874 and 1875.
MASPERO, Du genre épistolaire chez les Égyptiens de l'époque
Phraonique. 8vo. Paris, 1872.
———— De Carchemis oppidi Situ et Historia Antiquissimâ.
8vo. Paris, 1872.



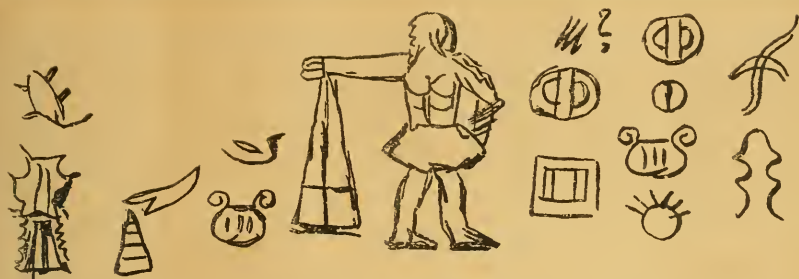
Fig 1.
Sketch by
C.F. Tyndall Drake
from "Unexplor'd Syria"



Fig 2.
M. Clermont-Ganneau
Quarterly Statement
"Palestine Explorer"
Fund 1873.



Fig 3.
Sketch by
M.W. Boscawen



10



Hittite Inscription Aleppo



W.H.R

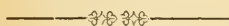
Fig. 1. From George Smith's Note Book, British Museum
Add. Mss. 30423, p. 29.

PROCEEDINGS
OF
THE SOCIETY
OF
BIBLICAL ARCHÆOLOGY.

THIRTEENTH SESSION, 1882-83.

Eighth Meeting, 5th June, 1883.

SAMUEL BIRCH, D.C.L., LL.D., &C., PRESIDENT,
IN THE CHAIR.



The following Presents were announced, and thanks ordered to be returned to the Donors :—

From the Society of Antiquaries :—Proceedings. Second Series.

Vol. IX. No. 1. November 24, 1881, to January 26, 1882.

Index, Title, &c., to Second Series. Vol. VIII. London. 8vo. 1883.

From The Royal Asiatic Society :—The Journal. New Series.

Vol. XV. Part 2. April, 1883. 8vo. London.

From The Geological Society :—The Quarterly Journal. Vol.

XXXIX. Part 2. No. 154. May 1, 1883. 8vo. London. 1883.

From the Royal Geographical Society : Proceedings and Monthly

Record of Geography, Nos. 5 and 6. 8vo. London. 1883.

From the Royal Institute of British Architects :—The Proceedings.

Session 1882-83. Nos. 14 and 15. 4to. London. 1883.

From the Anthropological Institute of Great Britain and Ireland :—

The Journal. Vol. XII. No. 4. 8vo. London. May, 1883.

From The Victoria Institute :—The Journal of Transactions.

Vol. XVI, 1882-83. 8vo. London. 1883.

[No. XL.]

From the Société Royal des Antiquaries du Nord :—Aarboger for Nordisk Oldkyndighed og historie. 1882. Parts III and IV. 1883, Part I.

‘Tillæg til Aarboger for Nordisk oldkyngighed og historie, aargang 1881. 8vo. Kjobenhavn, 1882.

From the Secretary of State for India in Council :—The Sacred Books of the East. 8vo. Oxford. 1883.

Vol. XVII.—Vinaya Texts. Part II. The Mahāvagga, V to X. The Kullavagga, I to III. Translated from the Pali by T. W. Rhys Davids and Hermann Oldenberg.

Vol. XIX.—The Fo-sho-hing-tsan-king, a life of Buddha. Translated from the Chinese by Samuel Beal.

Vol. XXIII.—The Zend-Avesta. Part II. Translated by James Darmestetter.

From S. Birch, D.C.L., &c. (President) :—Egypt's Place in Universal History. By Christian C. J. Bunsen, D.C.L., &c. Vol. I. 8vo. London. 1848. Vol. II, 1854. Vol. III, 1859.

From F. D. Mocatta :—The Mishnah, on which the Palestinian Talmud rests, from the unique manuscript preserved in the University Library of Cambridge, Add. 470, 1. By W. H. Lowe, M.A. 8vo. Cambridge. 1883.

From the Author :—Il Libro dei funerali degli Antichi Egiziani. tradotto e commentato da Ernesto Schiaparelli. Vol. I, folio. Torino, 1882.

From the Author, M. Terrien de Lacouperie :—On the History of the Archaic Chinese Writings and Texts.

Reprinted from the Journal of the Royal Asiatic Society. Vol. XIV. New Series. 1882.

Paper Money of the Ninth Century, and supposed Leather Coinage of China.

Reprinted from the *Numismatic Chronicle*. Vol. II. Third Series. 8vo. 1882.

The Silver Coinage of Tibet.

Reprinted from the *Numismatic Chronicle*. Third Series. Vol. I. 8vo. 1882.

From the Author, J. Linton Palmer, R.N., &c. :—Marquesan Tradition of the Deluge.

Read before the Literary and Philosophical Society of Liverpool, 8th January, 1877.

From the Author, John Campbell, M.A. :—A Translation of the principal Hittite Inscriptions yet published.

Pamphlet, privately printed.

From Villiers Stuart, M.P. :—Egypt. No. 7 (1883). Reports by Villiers Stuart, M.P., respecting the Reorganization in Egypt.

Parliamentary Report. London. Folio. 1883.

From the Author :—Is Sûmêr en Akkad hetzelfde als makan en Mêlucha? Bijdrage van C. P. Tiele. Amsterdam. 8vo. 1883.

Reprinted from the Letterkunde, 2de Reeks, Deel XII, of the Koninklijke Akademie van Wetenschappen.

The following have been purchased by the Council for the Library of the Society :—

The Temple and the Tomb. By Charles Warren. London. 8vo. 1880.

Map of Western Palestine, from Surveys conducted for the Committee of the Palestine Exploration Fund, by Lieutenants C. R. Conder and H. H. Kitchener, R.E. Scale, $\frac{3}{8}$ -inch to 1 mile. Special edition, illustrating the Natural Drainage, &c.

Special edition, illustrating the Old Testament, the Apocrypha, and Josephus. By Trelawney Saunders.

Special edition, illustrating the New Testament, the Talmud, and Josephus. By Trelawney Saunders.

Cuneorum Clavis. The Primitive Alphabet and Language of the Ancient Ones of the Earth. From the papers of the late Daniel Smith. Edited by H. W. Hemsworth. London. 8vo. 1875.

The following having been, by order of the Council, submitted for election, were duly elected Members of the Society :—

Rev. W. G. Elmslie, M.A., Willesden, N.W.

George Evans, M.A., The Poplars, Aberdare.

Samuel Joyce, jun., 113, Richmond Road, Hackney.

Professor Alexander Murdoch, 49, Arlington Street, Glasgow.

Llewellyn Saunderson, 10, de Vesci Terrace, Kingstown.

Rev. R. Vint, B.D., Southampton.

To be added to the List of Subscribers :—

The National Library of Ireland, Dublin.

The following were elected Members of the Society, having been nominated 1st May :—

Rev. Joseph Chotzner, Harrow-on-the-Hill.

Charles Compigné, 114, Kennington Park Road, S.E.

Rev. John Gott, D.D., Leeds.

W. R. Harper, Ph.D., Morgan Park, near Chicago, Illinois.

Henry Lumley, 31, St. James's Street, W.

The Rev. A. Löwy read a paper—"Underground Structures in Biblical Lands."

The area of the present inquiry is limited to Palestine and some contiguous tracts in other parts of Syria. Underground works were commenced in those regions long before a record was made of them in written history. These memorials of past ages include—

1. Caves fitted up for habitation.
2. Tombs, rock-hewn or otherwise, to which at a late period were added the Moslem *Mukams*, or shrines of holy persons.
3. Cisterns and reservoirs.
4. Aqueducts.
5. Miscellaneous structures, such as rock-hewn wine presses, &c.

These relics of past ages are witnesses of a rudimentary culture, now advancing, now retrograding, and always struggling either with hostile nations or with the peculiar and characteristic difficulties of Eastern countries. The present paper could only touch upon the first of the subjects mentioned in the foregoing list, viz., Cave-dwellings, and then only with a portion of them.

Caverns abound in Syria to such an extent as to make many mountains present a honeycombed appearance. Earthquakes and volcanic disturbances in pre-historic ages have anticipated the labours of the quarriers and the diggers in the sides of the hills. Such who delved in the fissures of the rocks and in the holes of the mountains belonged to the primitive portion of humanity, and were on the alert to find a refuge from wild beasts and still wilder fellow-creatures. Numerous caves which have served as dwelling-places for man have been noted down and described by that eminent staff of workers whom the Palestine Exploration Fund has sent out to enrich the stores of biblical knowledge. To the publications of that Fund, and to kindred works, including the judicious labours of Dr. Wetzstein, formerly Prussian Consul at Damascus, Mr. Löwy was indebted for a portion of the data he had to bring under the notice of this Society.

Some of the cave-dwellings in Syria are again inhabited by persons

whose vegetating existence has been ably described by the late Mr. C. F. Tyrwhitt-Drake in the volume of "Special Papers" published by the Exploration Fund in the "Survey of Western Palestine." This writer states that the Syrian troglodyte shares his underground dwelling with his cows, sheep, and goats. The entrance cut in the rock may be about $3\frac{1}{2}$ or 4 feet wide, open at the top, and descending either by an inclined plane, or by low steps leading to the doorway. The door is 4 feet high by $2\frac{1}{2}$ feet in width. The walls are seldom smoothed. The room is circular or of oval shape, and not quite 6 feet in height. In the centre the cattle are housed, whilst the human inmates—the man, with two wives, and perchance half-a-dozen children—are separated from their brute companions by a line of stones. Sometimes the place for the human inmates forms a raised ledge, a *mastabah*. The refuse is removed every morning, and deposited close to the outer gangway. After a heavy downpour of rain, some inches of water may add to the discomforts of this Augean stable. The slimy damp of the walls, the mosquitoes, the vermin, the reek of men and beasts, make, according to Mr. Tyrwhitt-Drake, an English pig-stye a palace in comparison with such a dismal dwelling. The aspirations of the cave-dweller do not go beyond cramming himself with wild herbs or gathering a few piastres, by sending his family to towns distant many miles, there to offer for sale some sticks for firing, or similar articles of little value. The property of the modern cave-dweller may consist of 20 to 30 sheep and goats, 4 to 5 head of cattle, a half-starved dog, a pair of donkeys, a rusty gun, a few skins to hold milk, an earthenware jar or two, a primitive plough, an ox-goad, a few bits of hair-cloth for wrappings and for bedding, or sacks for green herbs, especially mallows, which are the general food for the poor in North Africa, Syria, and Palestine. Millet is used for bread, and milk is prepared in various ways.

The greatest number of cave dwellings are found on the eastern side of the Jordan, in that portion of the territory of Bashan which, with its shifting frontiers, has been called the Hauran, a name to which further reference was made in the present paper.

Wetzstein, in the report of his visit to the Hauran, gives a clear insight into the condition of troglodyte dwellings. These were constructed in the remotest periods of antiquity. A cave was dug in a rock, about 12 to 16 paces by 8, and about 10 feet high. The entrance was between 3 and 4 feet wide. This was the residence of the family. In the interior, three additional recesses were excavated,

one for stabling the cattle, another for storing the broken straw, and a third for garnering the grain and other provisions. The daylight only passed through the door. Where a large number of persons had to be received, the subterranean dwelling places were more widely excavated. In such cases the ceilings were supported upon natural pillars, the internal rock being cut round about in column-shape; or huge stone blocks were piled one upon the other until they pressed against the ceiling. In some instances, arches were built for the support of the structure, and some of these buildings received much embellishment in the process of time.

These descriptions form a corollary to the picture of troglodyte life as given in Job xxx, 3-5. The poet who composed that book must have been an eye-witness of the miserable life led by cave-dwellers. As the translation in the authorised version appeared to Mr. Löwy to require a few modifications, he gave his rendering as follows:—

(v. 3.) “In want and in famine, solitary, are those who rush into a parched region which since aforesometimes has been desolate and dreary.

(v. 4.) “Plucking the salty plant amongst the herbage, the root of the broom plant is their food. They are driven away from the midst of fellow men; men cry after them as after a thief.

(v. 5.) “In the refts of stream-courses they come to dwell, in the caves of earth and of rocks.”

It made very little difference whether Job alluded to Idumean or Hauranic troglodytes. In the simplicity of an uncivilized state of society there are but few differences between one set of destitute classes and another. But it seems curious that *Tema* and *Duma*, noticed in the Bible, and which were to be sought in Idumea, occur likewise in the Hauran not very far apart from each other. It is in that territory, with its hundreds of deserted towns and villages, where the largest number of troglodyte localities are to be found.

Mr. Löwy then proceeded to the geographical portion of his subject.

Bashan, in the time of the Roman conquests, comprised four provinces. These, according to Josephus, had the following names:—Batanea (Bashan proper), which in the Bible time was famed for its lofty oak forests, its mighty bulls, and well-fattened sheep.

Batanea melted away, as Canon Tristram says, into Eastern Syria.

Gaulonitis (Golan in Hebrew), bordering on the Sea of Galilee, was likewise distinguished for its luxuriant fertility and rich pasture lands.

In the east of Golan we meet with Og's ancient capital, Edrei, now identified with Derât, and still remarkable for its colossal water tanks.

From Edrei a Roman road ran in a south-western direction, *viâ* Bazrah, to Salcha, and thence far off into Irak.

Mr. Löwy had now to mention two provinces belonging to ancient Bashan. One was known by the Roman name Auranitis, the other by the Greek name Trachonitis, denoting very appropriately the rough and rocky nature of that region, and in the Targumic versions *Tarchona*. Auranitis is undoubtedly of the same origin as the word Hauran, a name mentioned in Ezekiel xlvii, and also by Arabic historians. The appellation Hauran is supposed to indicate the numberless cave-dwellings of the land, and to be connected with the Hebrew word חור, a hollow. From the same word חור (*chur*) the original inhabitants of the cavernous region in the land of Edom appear to have received the name חורי, *Horites*, that is, troglodytes. No region in the world seems to surpass the Trachons, at least parts of them, in a terror-inspiring aspect. The plural has to be used in the name Trachons, for there is the Eastern Trachon, the Argob of the Bible, and the Western Trachon, the Safa (which means a waste or a void), with its pale gloss and colour of cast iron, where vegetation comes to a standstill. Wetzstein describes the Safa as a deluge of lava with numberless petrified streams of black and scarlet waves which in countless ages of antiquity were poured forth and became solidified, and then the next overflow ran down the sides of the lofty plateau. The Eastern Trachon now bears the Arabic name *Lejah*, or refuge, namely, of outlaws. The craters in the Hauranic mountains have combined with their lava to build up this region, which, twenty-two miles long by fifteen in width, stands from twenty to thirty feet above the underlying plain. All the convulsions of volcanic disturbances are stereotyped in the Lejah. The lava crust has been rent asunder to the very foundation. Gulf is by the side of gulf, and crags have been overturned or heaped one upon the other.

The Rev. Dr. W. Wright compares this region with a troubled sea, and draws a vivid picture of the basaltic waves, on the crests of which the sun, when setting, reflects its parting radiance, whilst the dark shadows appear like deep furrows of the waves. One of the volcanoes which furnished its quota to the formation of this huge lava plateau has retained the name شيجان, (*Shichân*), in which the Biblical name of King סיחון is easily recognized. The king may have owed his name to this gigantic volcano, which is said to have a circumference of 2,000 paces, and an elevation of 1,200 feet. On the top of the volcano is the tomb of a sainted Bedouin, Shichân.

Moslem tradition has here converted to Islam a name which belongs to the ancient Bible times.

The Rev. Dr. Wright, in the interesting articles he published in the "Leisure Hour" of 1874, "On the Giant Cities of Bashan," calls attention to the fact that whenever the region of Argob is mentioned, the Hebrew text employs the word **חבל** (Chebel). This word literally means a rope; and the late Professor Lee, without the slightest authority, imagined that **חבל** means a wave. We would then have to look upon the Hauranic mountain as an old and acknowledged representation of a system of waves. Ewald has gone further, and makes the Chebel of Argob to denote a Hades or Orcus-like region of Argob. The Chebel of Argob means nothing else but the *district* or *region* of Argob. The ancient Hebrews employed a rope or measuring-line for the measurement and allotment of landed property. (*See* Amos vii, 17.) **אדמתך בחבל תחלק**, "Thy territory shall be divided by the rope or measuring-line." The land appropriated by the tribe of Judah was mentioned in Josh. xix, 9, as the "portion" (**חבל**) of the children of Judah. Hence the Psalmist, **חבלים נפלו לי בנעימים**, "My portions (allotments) have fallen in pleasant places." The few adventurous champions of Bible knowledge who have visited the wild regions of the Hauran, impress us with the conviction that before, and in the days when the Israelites held Palestine, many disastrous battles must have been fought with the aboriginal marauders, who felt secure in their volcanic cave-houses, and could not be exterminated without the aid of such pestilential diseases as would be bred in the subterranean and unsanitary hiding-places.

According to the Bible the original appellation of this region of the Hauran was the land of the *Rephaim*, a word which in various sections of the Bible is synonymous with "the departed." Attempts to solve the enigma as to who were the Rephaim have utterly failed. The late Miss Fanny Corbeau laboured hard to prove that the Rephaim were connected with the Philistines, and through them with the Egyptians. In reality they seem to have been displaced by the Amorites, who have been noted for their iniquitous conduct, but of whose actual history we know very little.

The Bible has preserved only one word of the language of the Amorites, and this is highly significant. In Deut. iii, 9, it is stated that the Amorites called Mount Hermon "Senir," which name is rendered in the Aramaic versions of Onkelos and Jonathan ben

Uzziel תור תלגא, the Snow Mountain. Rashi, the great Jewish commentator of the Middle Ages, points out that Senir means *snow* both in the Germanic and the Kenaanite languages. By the Kenaanite is meant the stock of the Slavonic people. The *Slavonians*, at one time hereditary bond-servants, gave to many European languages the word *slave*, whilst the Kenaanite appeared as the typical slave, through Noah's curse: Kenaan shall be the slave of slaves. If Senir be an Aryan name, the Amorites would appear to be an Aryan people, which is not beyond the range of possibility.

By the side of the Rephaim, of whom King Og was one of the last survivors, the ancient Jewish commentators enumerate six synonyms, all denoting *giants*. The best known additional names are Nephilim, in Genesis vi, and the Anakim, in Numbers xiii, and in other parts of Scripture. These names have supplied material for the preservation of ancient Jewish folk-lore, of which, in a few instances, Sihon and Og are the heroes.

Sihon and Og are said to have been of the *Nephilim* who are mentioned in Genesis vi. *Nephilim* means fallen down or prostrate men. Jewish folk-lore here identifies the Nephilim or fallen with the Rephaim of Bashan, and it tells us that Sihon and Og were survivors of the heaven-assailing Titans. They were Nephilim, that is, cast down upon the earth. In this legend is the following grain of truth. *Sihon* in Bashan being a fire-emitting and colossal mountain, it was by tradition metamorphosed into a human giant. And as the volcano became extinct, and its thunders gave way to deadly stillness, it might well be proclaimed by dreamy tradition that Sihon whilst assailing the sky was overthrown and humbled for ever.

For this King Og, Jewish folk-lore has the additional legend that he lived before the Deluge, and was permitted to be saved by clinging to the Ark of Noah. In Abulfedas pre-Islamic history it is noticed that a goodly number of other persons were at the same time saved from the general destruction. The Jews appear to have regarded the Rephaim of Bashan as a race waning and decaying at the approach of a healthier and more vigorous race. They who originally lived in the depths of caves were in poetry and in proverbs mentioned as the enfeebled dwellers in the deep grave. The grave, the troglodyte cave for all times, was therefore the עמק רפאים, "the low land of the departed."

Remarks were added by Rev. W. Wright, D.D.; Mr. J. Park Harrison; Mr. W. Myers; Mr. T. Tyler; Rev. W. Meade Jones; Mr. Löwy; and the President.

A very fine *Hypocephalus* was exhibited by the kindness of Sir Henry Meux, Bart.

The Secretary exhibited a drawing of an Egyptian Tablet in the British Museum.

The remarks made by the President will be printed in the forthcoming part of the *Transactions*.

The following communication on "The Aleppo Inscription" was read by the writer:—

In my notes on the inscribed stones from Jerabis, Hamath, Aleppo, &c., printed at the end of Vol. VII of the *Transactions*, I expressed a hope that before long it would be possible to add the Aleppo Inscription to the series there given.

Mr. Rassam, before starting on his last expedition to Mesopotamia, had kindly promised to obtain for me if possible a squeeze of the inscription. On his arrival at Aleppo he made enquiries about the stone, and sent me the following information: "I was sorry to learn from Mr. Henderson, Her Majesty's Consul at Aleppo, that the said stone had been broken to pieces by, I believe, devout Moslems, who thought that such a heathenish monument defiled the true believers' place of worship, and the sooner they removed it the better."

As not a fragment remains, and there is now no possibility of obtaining a squeeze, I have, for comparison, drawn upon the two annexed plates, facsimiles of all the copies of the inscription I have been able to obtain. One was taken by Major-General S. W. Crawford, to whom I have written a request for the use of his copy, if he has preserved it, and shall hope to be able to add it to the series ere long.

Fig. I is taken from *Unexplored Syria*, by Richard F. Burton and Charles F. Tyrwhitt-Drake (London, 1872, p. 186). Mr. Drake thus writes: "To any one well acquainted with Hums and Hamah, the resemblance borne by the mounds on which the castles were built, at those places, to that of Aleppo, is most striking. The latter is the largest, but in shape, outline, and construction of its fosse, it is almost identical with the other two." * * * * "History is silent about the construction of these three sister castles—for I cannot but so regard them; but I believe that the five blocks of basalt at Hamah, covered with hieroglyphs in excellent preservation, may be the opening page to a new chapter in history." * * * * "At Aleppo I stumbled upon a connecting link in the history of these castles. In the south wall of the Jamai'a el Kákán is a block of basalt, with an inscription similar to those at Hamah; though much defaced, I made out

nineteen characters (including repetitions) identical with the above-mentioned. The door-step of a house to the north-west of the mosque is made of another piece of basalt, on which I could trace sufficient to feel sure that it also had been covered with inscriptions."

Mr. Drake, in a few lines, adds his opinion that the key to these characters must be looked for in the *Beth*, house, *Kaf*, hand, &c., &c., of the Semitic alphabets.

The illustration on p. 186 gives the inscription wrong way up.

The Rev. W. T. Tyrwhitt-Drake has kindly searched among the papers of his late brother for drawings or squeezes of this inscription, but I regret to say without any result.

Fig. II is taken from the *Quarterly Statement of the Palestine Exploration Fund*, 1873, p. 73. M. Clermont-Ganneau in the communication claims to have told Captain Burton and Mr. Tyrwhitt-Drake in 1871, and allowed them to copy a drawing in his possession made by M. Paucker. Certainly the inscription given by Mr. Drake cannot have been copied from that published by M. Clermont-Ganneau, who himself points out that the two copies differ considerably. We may conclude, therefore, that we have in them two independent copies.

M. Clermont-Ganneau writes: "The original stone of basalt, like those of Hamath, is embedded partly in the wall of a mosk, and partly in the hareem of an adjacent house. Only the former portion is visible, and consequently either the beginning or the end of the inscription is wanting in the above copy."

Some particulars are then given as to the possible construction and origin of the language.

Fig. III is from a drawing taken from the original stone by Mr. Boscawen, and of which he has kindly allowed the publication. He informs me that the stone was much worn away, and that the characters were cut in very low relief. The wearing away in some places appears to have been owing to the belief that the stone, like one of those at Hamath, possessed curing powers; in this instance the people believed that, by rubbing their eyes against it, ophthalmia could be cured.

It will be remarked that in this sketch of the inscription the lines are placed in the wrong order. Mr. Boscawen explains that this is owing to the two lines of characters having been drawn on separate pages of his note-book, without any notes as to their arrangement. They were accidentally placed in the wrong position in making the finished sketch.

Fig. IV is a copy of the page in the late George Smith's sketch-

book, preserved in the British Museum (Add. MSS., 30,423, p. 29), for permission to copy which I am indebted to Dr. Birch.

It appears from the fact that the inscription has always been printed wrong way up, that the stone was so placed in the wall. George Smith probably guessed this, and endeavoured in the portion of the inscription copied at the head of the page to correct it in his drawing. Doubtless he found it difficult to do so, broke off suddenly without completing his first copy, turned his sketch-book round, as is proved by the reversal of the (?) marks attached to some doubtful characters, and in this manner made his final copy.

In mentioning this class of inscription, I am glad to say that by the kindness of Professor Sayce I am able to report two new inscriptions cut upon the Niobê at Mount Sipylos. Dr. Gollob describes, in the "Wiener Studien" for 1882, the result of a careful examination of the figure which resulted in the discovery of the inscriptions, cut in relief upon surfaces prepared on the face of the rock.

Near to the "Hittite" cartouche, published* from drawings by Mr. Consul Dennis and Professor Sayce, were found some much-worn characters, which are identified by Gollob with the cartouche of Rameses II in Egyptian hieroglyphics. Higher up another inscription of nine or ten "Hittite" characters, also in a corroded state. Woodcuts of the three inscriptions are given by Gollob.

Professor Krall in his note also printed in the same number of the "Wiener Studien," considers it impossible to say in what kind of language the inscriptions are written, and thinks that these people had better be called the Syrian nation.

He points out that the incorrectness in the reproduction of the Egyptian hieroglyphics is similar to that found on objects of Phœnician manufacture, and like the latter, point to foreign workmen who endeavoured to copy what they did not understand. "I have seen," he adds, "at Professor Karabacek's, materials which were manufactured in Persia, and displayed badly-imitated hieroglyphic groups. Egyptian scarabs must have served as the model for the workmen of Sipylos."

Only the rudely-carved figure of "Ma" is now very clear on the cartouche, and as Professor Krall points out, the whole ought to be surmounted by the phrase, "King of Upper and Lower Egypt," , instead of "Son of the Sun," , which actually stands above it. Moreover, he adds, the bird which means "son," is turned towards the left instead of the right.

* *Proceedings, Soc. Bibl. Arch.*, January, 1881, p. 49. *Transactions*, Vol. VII.

He makes the suggestion that the two "Hittite" cartouches may contain the name of Khetasira, who made the treaty of peace with Rameses II, but if the cartouche is really that of Rameses II, and was engraved there for any historical purpose, ought not one of them at least to be rather the name of Rameses II written in the "Hittite" character?

W. HARRY RYLANDS.

The following communication has been received from Dr. W. Pleyte :—

DEAR SIR,

I have read with the greatest interest the communication from M. Revillout on the Papyrus Dodgson, containing the malediction of an Egyptian mother on her son embracing Christianity. The examples of Christianity in Egyptian documents are very rare; one only was noted, that the head of Jesus was signalized in a magical Greek text, existing in our Museum, and pointed out by Reuvens in his *Lettres à Letronne*. Also in the Papyrus Dodgson, neither the name nor the religion of Jesus or the Christ is named; only the name of *Peter*, the Christian name of *Petosiris*, indicates the changed religion. In the magic formulas from the Demotic bilingual papyrus at Leyden, I believe I have found other indications of Christian influence.

All Egyptologists know these interesting documents, the first publication of Dr. Leemans, after the death of Reuvens, who had the first bilingual text in preparation for the press.

The notices by Professor Reuvens and Dr. Leemans, but specially that from Brugsch in his Demotic Grammar and Dictionary, are valuable in this matter, and the translation of two pages by Professor Maspero in the first part of his *Recueil*, gives a good idea of the contents of the papyrus, magical, medical, as well as several others, written in the hieratic, of which Dr. Birch has given an interesting review, and myself an interlineary translation with a commentary.

In the great Demotic text the incantations take the first place, and the receipts or medicaments are few in number and of little interest.

Before I give the texts that I suppose contain Christian sentences, I must make some observations on the document itself.

It is not a bilingual text, but in it occurs a passage that has been translated into the following lines of Demotic. Several Greek characters are found in the text, but only to write the Gnostic name of the *Supreme Being* as embracing all the vocals of the alphabet.

This Name, derived from the Jehovah of the Hebrews, was a

simple exclamation, as *ia*, *ié*, *iao*, *iae*, &c., that served as a sigh, or as a glorification of God.

But in the text itself a number of words are taken from neighbouring civilisations or religions, and the determinative 𐎗 indicates that they are foreign words from other languages.

The Greek paraphrase indicates that we may find in these words many Greek names of beings or sentences, and my investigations have led to the result that such is really the case.

That some of these words were derived from the Greek, was also the opinion of the scholar that has written the Greek characters above the Demotic phonetics ; but although he was well acquainted with the Egyptian, he was not so with the Hellenic language.

For example, he has well transcribed—

𐎧𐎠𐎧𐎠 by $\tau\alpha\tau$. VII, 2. Plate III.*

III ~~X₂~~ by ταῖ. X, 20. } Plate V

$\hat{\pi} \in \mathcal{A}$ by $\tau\eta\iota$. X, 20. }

But of the Greek sentences he has transcribed none that give any Greek word.

It seems that he has employed a kind of syllabarium, with Greek transcription, for this purpose. Sometimes he had made faults, as in the transcription of Ἰησοῦς υἱὸς τοῦ Θεοῦ by τικιμεαχε, IX, 5, Plate IV, which must be read ψυχι, etc.; probably the Greek word ψυχωμαχει. Another word that may be a Christian term is Reverse, XII, 10, Plate XII, containing an allocution to Iao Sabaoth, Ὡς ᾤοντο πάντες οἱ ἀνθρώποι παντοκράτωρ, but this is perhaps a Gnostic epitheton, as VII, 16, Plate III, Ως ᾤοντο πάντες οἱ ἀνθρώποι αἰετῆρι, transcribed by the student with μαχοπνευμα, a word that perhaps must be read μεγαπνευμα. X, 6, Plate V, occurs the name of Ζήνων πατήρ; this must be the Christian name, of God, I believe. This name comes in combination with Πανταγάρης Πατερι, in a sense that also with little variation is written, X, 31. Plate V, Ζήνωνος Πανταγάρης Πατερι. The sense seems to be that of Egyptian mixed with Greek words. We can

* The first and second numbers refer to the pages and lines of the papyrus, the third to the plates as given in "Papyrus Égyptien démotique . . . du Musée . . . des Pays-Bas à Leide," Dr. Conrad Leemans. Folio. Leide. 1839.

read it, *Pa nuter šerau pater-a pater m-pe pa nuter aa*, “the youthful god, my father, father in heaven, the great god.”

Before I give the translation of another formula, I must say something on the transcription of the Greek θ .

The θ is transcribed in two manners by *th* and *ts*, and it seems that the Greek θ had the two pronunciations of *th* and *ts*, as the English *th* in *that* and *with*.

Of the use as *th*, we find a mass of examples:—

ΒΖΓΔ ριζω ανακ θομ. VI, 13, Plate III.

13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045

Σ 27, 14 θομ. VII, 12, Plate III.

Ἰς ἡμᾶς θεοῦ. IX, 2. } Platon IV

{ } ἡ θεοῦ. IX, 1. } Plate IV.

Σ 311, 6, Plate VI, and many

others. But there are also several words that are written with $\neq$ and transcribed by θ .

[illegible]

In other words occurs the θ as transcription of the *ts* and *th*.

[illegible]

Only once *ts* is transcribed by *t* and *s*.

ἡμῶν ἐπὶ ὁδῷ ἀρχινοῦται. XXII, 8, Plate XI.

kiri thee pīsitū eksaimi atam. If we take the phrase as a Greek sentence, we can read it, Κυριε Θειε πιστε εξημι Αδαμ,
O Divine faithful Lord, I cast out Adam.

Leyden, 3rd January, 1883.

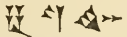
I have read with great interest the valuable remarks made by Professor Oppert upon the tablet containing the unknown writing published by me in the April number of the *Proceedings* ; and as it would take up probably many pages to go through, bring all the passages bearing upon, and prove the correctness of the translation which I there proposed, I venture to make only a few remarks.

In the first place, I will repeat my translation, rendered into better English. In order to give the sense, word for word, this was not possible in the interlinear rendering before published, and was not considered necessary on account of the simplicity of the text.

“Ê-sagila-lišši, son of Nabû-kušur-šu, Bêl-balaṭ-su, son of Nadintum, and Ina-Ê-sagila-lilbir son of Bêl-êderu, have cheerfully sold Nanâ-Babili-šininni, their servant, whose right wrist is inscribed with the name of Ina-Ê-sagila-lilbir, the slavedealer, for one mana eight shekels of refined silver, for the price complete, to Urmanû, son of Lišir. Ê-sagila lišši, Bêl-balaṭ-su, and Ina Ê-sagila-lilbir have received the money; one mana eight shekels of refined silver, the price of Nanâ-Babili-šininni, the servant of the men, from the hands of Urmanû.

"If a claim should be made upon Nanâ-Babili-šininni, the servant of the men, Ê-sagila-lišši, Bêl-balat-su, and Ina-Ê-sagila-lilbir, the slavedealer, make up (?) the amount (?), and shall give (it) to Urmanû."

The meaning of the above contract is clear. Three men have a female slave to sell, who is marked, perhaps on the right wrist or the back of the right hand, with the name of one of the sellers, because of his being, probably, an extensive slaveowner, and therefore a slavedealer, in partnership with the other two. The slave is sold, and according to the terms of the contract, it is provided that if, in consequence of the mark upon the slave, any of the kinsfolk of the man whose name she bears claim her (successfully, as is of course implied), then the sellers are to refund the money to the buyer. The transaction is of the simplest kind, and there is very little of a legal nature about it.

The word  is of very common occurrence in these texts, and seems always to mean simply "money," the aspirate () being merely to strengthen the case-ending. The translation of "receipt" is, to my mind, most improbable, for it is not likely that the Babylonians, being an exceedingly businesslike people, would hand over a receipt for money that had never been paid.

I think that every Assyriologist will agree with me, that though  *šēru*, means "flesh," yet  *duppu*, "tablet," can hardly mean "loins," and  *ēmittu*, "arms," and that *šaṣāru* does not mean "to be addicted," but "to write."

The word *kalû*, in Assyrian, means "to burn," and therefore to purify, when speaking of metals. If it comes from  we ought to have the form *kēlû*. The meaning "refined" is certainly to be preferred, because coins are not engraved, but struck.

Paḳru may, and probably does, refer to the "former owner," or better still, to his kinsfolk. Dr. Oppert's rendering does not, however, change the sense much, for what is a "rescinding action" but "a claim?"

I cannot agree with the reading *nišu luttim* for  *amē-lut-tum*. As before remarked, it is an abstract form from *amēlu*, "man," and the fully spelled-out form  *a-me-lut-tum*, occurs rather often. The original meaning was "men" in general (homines), then "slaves." "Seller of slaves" is undoubtedly the meaning of *nadin amēluttum*.

As to the word *ittabšû*, it is, of course, *Ittaphal* of *bašû*, "to be," and means "it is made," or "it shall be made," and can hardly mean "should be successful," though the success of the claim is, of course, implied.

The reading of "Nanâ" was preferred to that of "Istar" for the group 𒌷𒍪𒌷, because of the passage in W.A.I., II, pl. 48, l. 16 *cd*, and 50, l. 67 *ab*, where the city-name 𒌷𒍪 𒌷𒍪𒌷𒍪𒌷 𒌷𒍪𒌷 𒌷𒍪𒌷 is called, in the Assyrian column, 𒌷𒍪𒌷𒍪𒌷 or 𒌷𒍪𒌷𒍪𒌷𒍪𒌷 *Ra-ag-Na-na*. Here 𒌷𒍪𒌷𒍪𒌷 have evidently the value of *rag*, and the remainder of the word, *Nana*, belongs, of course, to the group 𒌷𒍪𒌷. 𒌷𒍪𒌷𒍪𒌷𒍪𒌷𒍪𒌷𒍪𒌷𒍪𒌷𒍪𒌷𒍪𒌷𒍪𒌷 may therefore be read, quite correctly, *Nanâ-Bâbili-šininni*. It is not unlikely that Istar and Nanâ were originally, if not in later times, one and the same goddess, as has been suggested for the two Assyrian Istars, the one of Arbela, and the other of Niniveh.

In my paper describing the *Plaint of a Babylonian Widow*, claiming her property, which will appear in the *Transactions*, the result of a careful study of documents of this class will be given.

The following communication has been received :—

DEAR MR. RYLANDS,

May 17th, 1883.

Some years ago I put forward the opinion that the Biblical names Shem and Japhet found their explanation in the Assyrian words *šamu*, "olive-coloured," and *īppātu*, "the white race." I am now more than ever persuaded that I was right in this suggestion. Will you allow me briefly to give my reasons for making it?

The meaning of the name of Ham has long been recognized. It is an amalgamation of the Hebrew חם, "hot" (a root which is also met with in Assyrian), and the Egyptian *kem*, "black," which was frequently used to denote the land of Egypt itself. Shem, according to the ordinary rule, would correspond with the Assyrian *šamu*, the Assyrian *š* representing a Hebrew ש in proper names. Now *šamu* signifies much the same colour as the Greek γλαυκός. Its nearest English equivalent would be "grey," which is sometimes used of blue eyes, sometimes of a colour that is almost brown. Similarly, while *šamu* can be employed to denote a stone, which was probably the Sinaitic turquoise, it was also applied to a mist or cloud. Whether the bye-form *šiamu* is the Hebrew שֵׁם I will not decide. In any case Professor Delitzsch is certainly right in saying that *šamu* is "probably grey, and perhaps brown." It is, in fact, like γλαυκός, "olive-coloured," and would thus be appropriately applied to denote the colour of the skin of the so-called Semitic populations in Western Asia.

Japhet answers almost exactly to the Assyrian *ippatu*, the feminine of *ip̄u*, "white." Now in the bilingual hymns and elsewhere the Sumerians of Southern Babylonia are called sometimes "black heads," sometimes "black faces," and this "black race" seems to be meant by the word *adamatu*, which is given as the Semitic equivalent of the Accadian *adama*. The latter word was expressed by two ideographs which literally denoted "black blood." At all events *adamatu* would be a close parallel to *ippatu*, the feminine being employed, as is usual in Semitic languages, to represent an abstract noun.

Yours truly,

A. H. SAYCE.

BRITISH MUSEUM.

May 8th, 1883.

DEAR SIR,

A few weeks ago there arrived from Aden some cases containing Himyaritic inscriptions. They were presented to the British Museum by Major W. Hunter. I beg to enclose a description of these antiquities, together with copies of the inscriptions upon them.

No. 1. An alabaster bowl; the shape of an irregular square with rounded corners. Its greatest diameter is 12 inches, and its lesser 10 $\frac{3}{4}$. Its outer depth is 4 $\frac{5}{8}$ inches, and its inner depth at the middle is 4 inches, gradually decreasing until it becomes 3 inches at the sides. The outer sides are roughly hewn, and the letter **I** is inscribed on the bottom of the bowl. Two figures, rudely cut, stand at the end of the inscription, which runs thus :—

[illegible]

No. 2. Part of a stone tablet, $27\frac{1}{2}$ inches long, 10 wide, and $\frac{3}{4}$ thick. The letters are $2\frac{3}{4}$ inches long. It bears the following inscription, written boustrophedon:—

❀X15)H415N15)11580150H0❀

[illegible]

155601504801)4X1)651X

No. 3. Part of a stone tablet, 23 inches long, 13 wide, and

The following, in continuation of the communication published in the *Proceedings*, 6th March, has been received from Dr. Birch :—

OSTRAKA OF HADRIAN, THE ANTONINES, AND SUCCESSORS.

The following will complete the dated ostraka in the British Museum, the results of recent acquisitions. They show the numerous taxes imposed on the Egyptians, all of which were imposed on the ratepayers, consisting of: 1. The poll-tax; 2. The workman's licence; 3. The conservancy of the river; 4. The indirect-tax; 5. The surveyance-tax; 6. The registration; 7. The Pretor's barge-tax; 8. A cattle-tax. The taxes themselves were paid to the *πράκτωρ*, who appears, from the researches of M. Révillout, to have been a kind of beadle. The taxes themselves were often farmed out to contractors, and collected by them or the beadles or surveyors, and the receipt or register was made by the *praktor* or beadle rarely with his own signature.

OSTRAKA FROM TRAJAN TO SEVERUS.

The tiles are accompanied throughout by ciphers and sigla for the monetary values; the calculations throughout being Greek, although the taxes must have been paid either in the local currency of Egypt, or else in Roman money. The pieces mentioned are the drachma, which, at the time of the Roman Empire, was used instead of the denarius; and to this piece the word silver is sometimes added, or else the word silver or money alone used, with drachmas omitted, to express the same. No other gold or silver coin is mentioned. The lesser values, which cannot have been silver, but copper, were the obol and the triobol. The Egyptian drachma was a piece of potin equal in weight to the old tetra-drachm, or four denarii, but reckoning only as one. (Lénormant, "La Monnaie," Tom. I, p. 204 and following.) But what were the obols and triobols? It will be seen that the triobol was an actual piece in circulation, according to the tiles. According to the Greek notation, 6 obols went to the drachma, and the triobol must have been a large sized bronze coin.

In the cursive Greek there is no distinction of letters, and capitals are not used. The word for year has, however, the cipher **L**, for *ετος*, written in large size.

There are one or two corrections to make to my former paper. The *Διαγν* commencing the ostraka of Caligula appears to me to be the commencement of a proper name.

All the tiles, except otherwise mentioned, are in the British Museum. They are about 2 inches to 3 inches wide, and 1 to 2 inches high, and from Elephantine, and were collected by the Rev. Greville J. Chester in the course of the last few years.

Διεγραψ̃ Παπυρις Παπυριος
 ὃ λαογρα^ρ ΑΙ Λ Τραιανου
 Καισαρος του κυριου αρ' ιζ'
 Ερμογενης πρα εγραψα. 5790 b.

“Papyris, son of Papyris, for the poll-tax of the 11th year of Trajan Cæsar, the lord, silver drachmas 17. I Hermogenes, the collector, have written it.”

This was omitted in the former list, but is of the 1st or 11th year of Trajan. The other contributor to the capitation-tax of the 1st and 10th year of Trajan was Harpaesis.

Τριαδελφος πρα . . .
 τωρ διεγραψεν Ερπασις Πε
 τορζμηθου υπερ μερισμου
 ποταμουφυλακιδες ΛΙ . . .
 ανου Καισαρος του κυριου . . .
 β ΑΛ Αδριανου Και
 σαρως του κυριου
 θωθ κᾶ 5791 k.

“Triadelphos collector, Harpaesis, son of Petorzmethes, has acquitted for the assessment of the guardships of the river the 1(9th) year of Trajan Cæsar, the lord, the 1st year of Hadrian Cæsar, the lord, 21st Thoth.”

As he paid in the 1st year of Hadrian, and was evidently in arrear, the part to be restored is the 19th year of Trajan. The date is A.D. 117.

Τριαδελφος πρα^κ διεγραψ̃
 Αρπασις Φενοφεος Τανυθ
 φορος Αμμ(ων)ατης Θεουμμενα
 ὃ επιτηρητικου (?) δρα^χ οκτω
 τριοβολον ζη β
 Λ Αδριανου Καισαρος
 του κυριου Μεσορη ε
 δια Ποινου Τρεαδελ
 φου παρ 5790 c.

“Triadelphos collector. Harpaesis, son of Phenopheus, Tanuthphoros, Ammonates, has paid on account of the surveying-tax 8 drachmas and a triobol 8, the 3rd year of Hadrian Cæsar, the lord, the 5th Mesore, by Poinos Triadelphos”

The β refers to the 3rd year of Hadrian, as it can hardly be the cipher of the triobol. Παρ is obscure. A.D. 119.

Ουαλεριων και οι λοῖ μισθ^θ ιερας
 πυλης Σοηνης δι Σεραι γρ
 διεγραψ Παχνουβις Φανωφεως
 μῦ Ταχομτβηκις τριτου
 ετους Αδριανου του κυριου
 κατα μερ^ο δραχ^χ δεκα επτα
 δεσμ^ο Ιζ ιζ L Δ
 Αδριανου του κυριου
 Με^χ ιζ

5691 g.

“Valerion and the other farmers of taxes of the sacred gate of Syene, by Serapion writing. Pachnoubis, son of Phanopheus, and his mother Tachombekis . . . for the 3rd year of Adrian, the lord, for the assessment, 17 drachmas, the disme, the 4th year of Hadrian, the lord, the 17th Mecheir.”

The abbreviation δεσμ^ο is obscure, the drachmas being usually followed by obols. A.D. 120.

Ουαλεριων και οι λοι
 πυλ Σοηνης δι
 διεγραψ Καλασιρ
 σνιοτος λαογ δ
 Αδριανου του κυριου
 δραχ^χ δεκα επτα
 δεκα ιζ ιζ
 LE Αδριανου του κυριου
 Χοιακ ιη

12642, Brit. Mus.

“Valerion and the remaining (farmer of taxes of the sacred) gate of Syene, by . . . Calasiris, son . . . snious, for the poll-tax of the 4th year of Hadrian, the lord, 17 drachmas, the 5th year of Hadrian, the lord, the 18th Choiak.”

The second δεκα seem to refer to the drachmas. A.D. 120.

Ουαλεριων και οι λ
 πυλ Σοηνης δι
 διεγραψ Παχνου
 Φενωφ μη Ταχομτ
 τεταρτου ετους Αδρ
 του κυριου δραχ οκ
 Παυνι ιε με
 δεκα εννεα
 Θουθ ι ζιζ 5791 *h*.

“Valerion and the other (farmers of taxes of the sacred) gate of Syene, by Pachnoubis, son of Phanopheus and his mother Tachombekis, has acquitted for the 4th year of Hadrian, the lord, 8 drachmas, the 15th Payni, of the assessment 19 (drachmas) Thoth the 17th (17).”

An ostrakon with some anonymous farmers, probably Valerion and company, of the 4th year of Hadrian, is published by Franzius, No. 4867. The date is A.D. 119.

. . . . γρ^ε Πετορζμηθης Πετορ
 ης Παχνουμις υι μερισ
 ι^α ΕΛ Αδριανου του κυριου
 πρ εγρ χου ιε 5788 *c*.

“Has paid Petorzmethes, son of Petorzmethes Pachnoumis, for the assessment of the conservancy of the river of the 5th year of Hadrian, the lord the collector, have written it, the 15th Choiak.”

The amount is wanting, as also the name of the collector and the tax. A.D. 120.

Σαναμους πρα^κ διεγραψ
 Παχνουβις Φενωφews
 μ^ς Ταχομτ^εη^κ υ) μερι
 ποταμοφυλ ΕΛ Αδριανου
 κυριου υ) ζβ οβολ τρεις
 Σαυ πρ εγραψ Φαρ^υ ε 5790 *p*.

“Sanamous (or Sammous), the collector, Pachnoubis, son of Phanopheus, and of his mother, Tachombekis, on account of the assessment of the conservancy of the river the 5th year of Hadrian, the lord 2 drachmas 3 obols. I Sanamous, the collector, have written it the 5th Pharmouthi.”

The doubt is, if the name of the collector is not Sammous, which is otherwise found. The date is A.D. 121.

Φλασιος Ευτυ^χ απομι^θ Φλαιοιου Παρσα^θ
 μισ^θ ιερας πυ^λ Σοηνης δια Σεραπιωνος
 βοη^θ διεγραψ^ψ Αρπαησις Φενωφιος
 μ̃ Ταχομτβηκιος λαογ του ογδωου ετους
 Αδριανου Καισαρος του κυριου κατ μερ δρα^χ
 δεκα επται ζ ιζ LΘ Αδριανου του
 κυριου Χοιακ ε

5790 ι.

“Flavius Eutuches, sub-farmer of taxes of Flavius Parsamathes, the contractor of taxes of the sacred gate of Syene, by aid of Serapion. Harpaesis, son of Phenophis, and his mother Tachombekis, has paid for the poll-tax of the 8th year of Hadrian Cæsar, the lord, according to the assessment, 17 drachmas, the 9th year of Hadrian, the lord, the 2nd of Choiak.”

There is a new word here, the ἀπομισθωτης, the sub-contractor. What the word refers to before the date is obscure, unless to some payment. The date is A.D. 124.

.....^ε
 επιτηρητ̃ ιερας πυλης Σοηνης
 δι Σεραπιωνος διεγραψ̃ . .
 (Πα)χνουβις Φενωβεος
 μ̃η Τακομτβηκιος λαογ
 του εβδομου ετους
 Αδριανου Καισαρος του κυριου
 δρα^χ τεσσαρας ζ δ
 Παχ ιζ
 δ αλλας δρα^χ δεκα τρεις
 δεκα ιζ ιγ ιζιζ ιε

5791 α.

.....
 “Inspector of taxes of the sacred gate of Syene, by Serapion. Pachnoubis, son of Phenopheus, and his mother Tachombekis, has paid for the poll-tax of the 7th year of Hadrian Cæsar, the lord, four drachmas 4 the 17th of the month Pachon; he owes 13 other drachmas, 10, 13, 15.”

The date is A.D. 123.

Δ

 κ̃ε
 Μεσωρη
 θ Αδρια
 Θωθ κ̃ε
 δεκα

5791 η.

" 25th Mesore, 9th of Hadrian Thoth
25 10."

Too obscure to be read. Dated A.D. 125.

αχομ Πετε . . . πρακ
διεγραψε Παχνουβις Φενω
φews μηδ Παχομτβηκι
ς μερισμου ποταμοφυ
θςρι 4 οβολους δεκα
Λθ Αδριανου Καισαρος
του κυριου Μεχειρ
κη

5790 π.

"Pachom . . . son of Pete . . . the collector. Pachnoubis, son of Phenopheus, and of (his) mother Pachombekis, on account of the assessment of the conservancy of the river, 9 . . . three-obols (triobols) 10 . . . the 9th year of Hadrian Cæsar, the lord, the 28th Mecheir."

It is doubtful if the name of the collector is not Pachompeten-
ouphis. It is important to fix the amount of the rate of the con-
servancy-tax. It may be 9 drachmas three obol, or a triobolon, but
the word δεκά (10) after obols seems to point to 10 drachmas.
A.D. 125.

Παχομπετε . . . φews πρακ διεγρ
Αρπασις Φινωφews μρ Ταχομτβη . .
ως μερισμου ποταμοφυλ θριηοβο
λους δεκα Λθ Αδριανου του κυριου
Φαμενωθ 5

5791 λ.

"Pachompete . . . pheos, collector, Harpaesis, son of Phanopheus, and of his mother Tachombekis, has acquitted for the assessment of the conservancy of the river, 10 triobols, the 9th year of Hadrian, the lord, the 6th of Phamenoth."

The same as the preceding, but here, after three obols, abnor-
mally written, the word is 10, three obols more. A.D. 125.

. . . Σερα διεγρ Αρπασις
Φενωφews υ χειροναξιου
δεκατου Ι Αδριανου Καισαρος
του κυριου δραχ οκτω
ιζη ΙΑΛ Αδριανου του κυριου
Παχων δ
Φαμενωθ 5 τεσσαρες

4δ

5790 ρ.

"By Serapion. Harpaesis, son of Phenopheus, has paid for the workman's-licence for the 10th year of Hadrian Cæsar, the lord, the 4th of Pachon, eight drachmas 8. The 11th year of Hadrian, the lord, the 4th Pachons, he owes four (other drachmas)."

The receipt was given the 11th of Hadrian, A.D. 127. Serapion was the clerk of Fl. Eutyches and Longinus Primus.

Φλάνιος Εὐτυχῆς μισθὸν ἱερὰς πυλῆς Συήνης
καὶ Λογγίνος Πρίμος καὶ οἱ σὺν αὐτῷ
ἐπιτηρητὴ δια Σεραπίωνος βοῆθ
διεγράψεν Παχνοῦβις Φεωφίως
μὲν Ταχομτβηκῆς ὅντος τοῦ
ἐνδεκατοῦ ἐτους Ἀδριανοῦ Καίσαρος
τοῦ κυρίου ἀργύρου ὀκτώ
ζῆ Παννὶ ἐδῶκεν ἀλλὰς δὲ ἑνὶ
νέμει Παννὶ ζῆ θ' ἐξ

5790 i.

"Flavius Eutuches, farmer of taxes of the sacred gate of Syene, and Longinus Primus and those with them, by aid of Serapion. Has paid Pachnoubis, son of Phenopheus, and his mother Tachombekis, for the rest of the 11th year of Hadrian Cæsar, the lord, 8 drachmas of silver 8, the 5th of Payni, 7, he owes the other 9 drachmas 9. 15, 17."

A.D. 127. It is obscure how much Pachnoubis paid if not 8 drachmas, and then he owed 9, but the tax is not mentioned, unless ὅντος is written instead of ὅντος.

Ἀμμωνίος καὶ οἱ σὺν αὐτῷ
τέλ' ἔπειτα λ' Σοῦν δια Ἀμμωνίδου
Τραυματῆ Εἰρηνίου Τυραν-
νοῦ χρ' Ἀπεχ' παρα σου τῷ
γινόμεν' τέλ' ὅν ἐξήγ' κουφόν
λαγ' β' LIIΓ Ἀδριανῷ
Καίσαρος τοῦ κυρίου Μεσορῆ
ἱ

Ostrakon belonging to the late Mr. C. Appleton.

"Ammonius and those with him, the tax-gatherers of Syene, by Ammonides, son of Traumatius, to Eirenios, son of Tyrannus, greeting. I hold from you for the present tribute which I demanded the second small remittance (or cask), the 13th year of Hadrian Cæsar, the lord, the 18th Mesore."

I cannot verify this tile, but the second line is obscure, for the word τελώνης I have not found elsewhere as followed by 5. λαγ may be the contraction for λογ; λ' is obscure. A.D. 129.

Σαμμοῦς πρα^ς διεγρ
 Ἀρπαῆσις Φενωφέως
 ὅ μειςμοῦ ποταμοφύλ
 ΚΛ Ἀδριανου του κυριου
 αρ^γ 4 δυο Μεχειρ γ Σαμ^μ
 πρα^ς εγρα

5790 s.

“Sammous collector, Harpaesis, son of Phanopheus, on account of the assessment of the conservancy of the river, the 20th year of Hadrian, the lord, of silver 2 drachmas, the 3rd Mecheir. I Sammous (Sanamous), the collector, have written it.”

The conservancy-rate here was 2 drachmas, which with 17 for the workman's-tax and 17 for the poll-tax, makes 36 drachmas; the form written expresses that the collector had registered it.

Ουαλε . . .
 αντω
 δι νο
 Παχνου
 ζμηθις
 δεκα επ
 ΛΓ Αντω
 του κυριου

Tile at British Museum.

“Valerion (and those with) him by Serapion. Has paid Pachnoubis, son of Petorzmetis (drachmas) 17 the 3rd year of Antoninus (Cæsar), the lord.”

Too imperfect to make out more than the 17 drachmas for the poll-tax. A.D. 139-140. The name of the tax-gatherer has been read Valerius Merion by Young and Franzius.

. . . . ερας πν^λ Σοη
 . . . ν συν αυ επιτηρ . . .
 . . εγρ^α Παν
 αρ . . δραχ δεκα
 . . . ΔΛ Αντω

Tile at British Museum.

“ of the sacred gate of Syene those with him surveyors of taxes Has paid Panubtis . . . of silver 10 + drachmas the 4th year of Antoninus.”

A tile of the 4th year of Antoninus, with a rate for the Pretorian barge, has been published by Fröhner, *Rev. Arch.*, N.S., XI, p. 433; and another with the tax-collectors Heracleides and Isidoros, Young, 53, 6, and Franzius, 4875. The date is A.D. 140-141.

Ουαλερι

Πετορζμ

Αμμωνίου

ΛΔ Αντωνινου

. . ννι ις

Tile at British Museum.

“Valerios Petorzmethes of Ammonius the 4th year of Antoninus, 16th Payni.”

Same date as preceding.

Διονυσιος πρ ιερας πυλ . . .

. . . δια Παχομψακισ βουθ

. . . . Πανυθτις Πετορζμθης Πετορ

. . . ζμηθης μητ Θιν Πετορζμηθη

. . . ρ ΘΛ Αντωνεινου

. . . Καισαρως του κυριου δραχ

. . . κοσι οβολ δυω ιζ Επειφ

κῷ

5790 *l.*

“Dionysios, collector of the sacred gate (of Syene), by aid of Pachompsachis. Petorzmethes, son of Petorzmethes, and his mother Thinpeleia (has paid for the assessment), of the 9th year of Antoninus, the lord, 20 drachmas, 2 obols, the 21st Epiphi.” A.D. 146.

Τιβεριος Ιουλιος Λονγινος

και Ουαλεριος Σωκρατης

και οι συν αυτοις επιτη^τ ιερας

πυλ Συ^η εσακολουθ^θ Ηρακλειδου

και Ισιδωρου μισθ^θ διε Πανυθ^τ

μη^τ Θινπελαντος χειρ^ο αργ

δραχ δεκα δυω ιζ ιβ ΛΖ

Αντωνεινου Καισαρως του κυριου

Αθυρ ιθ ο α δει χειρ^ο δραχ

οκτω οβ δυω ιζ η

5790 *f.*

“Tiberius Julius Longinus and Valerius Socrates and the others, with their surveyors of taxes, of the sacred gate of Syene, successors of Heracleides and Isidorus, farmers of taxes, Panubtis, son of his motner Thinpelaus, has acquitted for the workman’s-tax 12 drachmas, of the 7th year of Antoninus Cæsar, the lord, the 19th of Athyr. He owes the other 8 drachmas, 2 obols, of the workman’s-tax, 8.”

A most important tile for showing the relations of the farmer and surveyor of taxes. A.D. 144. Others of this year, Young, 54, 11; Franzius, 4870.

Αμμωνιος και Σω^ο ο
 αρ^γ Ελεφ διεγρ Καλ
 μητ Ζορανο Πετο
 τειμη^ς δημοσιου
 δρα^χ τρις οβολ δ
 Αντωνειν

Tile, British Museum.

"Ammonius and Socrates, the collectors of the silver of Elephantine, Calasiris (son of Petorzmetes), and his mother Zor
 Petor of public value . . . 4 drachmas, 4 triobols (the
 . . . year) of Antoninus (Cæsar, the lord)."
 It is of uncertain date, the year and month not being mentioned.

. . . . μοις επι^τ ιερ πυ Σοηνης .
 ιωνος Μαχαιοφορου
 Απαχνου^θ υ^θ Αμμωνιου
 . . ων προβατων εξ προ^θς
 . . Ι Αντωνεινου Καισαρος του κυριου
 ι ζ θς
 ου Καισαρος του κυριου
 φαμενωθ γ

12460, British Museum

"... mois, surveyor of taxes of the sacred gate of Syene, by Serapion Macharophorus, Apachnoub, for the . . . of Ammonius
 . . . of the sheep, 6 drachmas, the 6th year of Antoninus Cæsar, the lord, 10, 9 dr."

"... of Antoninus Cæsar, the lord, Phamenoth."

Apparently of Antoninus, but date uncertain. This is a receipt for customs.

.
 μας
 . . sr Ι Γ Σεουηρου Περτινακο(ς)
 Ιουλιος Φροντων σεσημειωμαι

5891 i.

"... the 3rd year of Severus Pertinax. I Julius Fronton have taken a note." (?) (or been noted).

The greater part of this tile is deficient, and it is uncertain if it is a receipt for taxes. The final word appears in place of the usual
 ἔγραψα, 'have written' or 'registered.' A.D. 244-245.

No tile of later date under the rule of the Roman emperors occurs in the British Museum.

The following Communication has been received from Mr. F. Cope Whitehouse, in continuation of his researches in the Mœris Basin :—

Although the results of my explorations in the Fayoum and the desert to the west of the Nile, from the latitude of the Pyramids to the Herms and Hagar Musqiqeh in the Wadi Reian, published in the "Proceedings" in June, 1882, were directly opposed to the statements of fact and conclusions of the entire scientific world, their accuracy has not been disputed.

Anxious, however, to verify them beyond any possibility of doubt, and to determine whether the basin of the Wadi Reian might be used as a waste-weir for the Nile without danger to the Fayoum, and whether the cultivated area of that flourishing province might be once more extended to the old limits of the Arsinoite nome, I returned to the Qasr Qerun with a European engineer, and on the 12th of March, 1883, ran a line of levels to the Birket el-Qerun. The present lake is believed to have risen eight mètres in the last eleven years, and is rapidly destroying a large extent of cultivated land. It is however still over thirty mètres below the Mediterranean, and 44'94 mètres below the base of Qasr Qerun. This temple of the Roman period is on the same terrace as Nezhleh. The desert sinks slightly to the west, but it rises to the south, as much perhaps as seven mètres, completely separating the two deep basins at nearly the level of the Nile. I also went again to the ridge which separates Gharaq from Reian, followed the Bahr Yussuf from Behnesa to the north, and on the 3rd and 4th of April, accompanied by the Chief Engineer of the Province and a large party, examined the desert to the south-west of Qasr Qerun, and the dyke which the engineers declared to have been used as a canal. The black earth in that part of the desert, like the deposit over a mètre deep in the Wadi Reian to the south-east, is conclusive proof that the Nile water was conveyed there in large quantities, and for a long period of time.

It is unnecessary, when it is proposed to flood the Schotts near Biskra with salt-water, to dwell on the advantages which would arise from filling this 'Schott' with the fertilizing waters of the Nile. It does not contain a single inhabitant or a feddan of cultivated land. No one could be harmed by it. The testimony of antiquity demonstrates its feasibility and value. It must be remembered that although the Meridis Lacus of the Ptolemaic maps is rightly distinguished

from the relatively shallow 'Paludes,' basins, or marshes of Mareotis and Sirbonis, it was probably less than half the area of the great sea which once filled the *three* basins, the Fayoum, the Gharaq, and the Reian. These explorations render it certain that if the dyke of el-Lahun yielded to the heavy pressure of high Nile, and the stream continued for some years to enter without check, the water would pass into the deep valley to the south; but my recent survey also proves that that basin may be filled to a great depth without endangering the Fayoum. It seems probable, therefore, that down to the fifth century B.C. the entire area was flooded, except the plateau occupied by the Labyrinth and the adjacent towns, and that it was gradually redeemed, and the fertile fields of the later Arsinoïte nome substituted for the lake in the northern and eastern parts. When the water of the Fayoum basin had diminished below the level of the neck at Qasr Qerun, canals were constructed, and fortifications were erected to protect the part thus added and the road which entered the desert at this point. While it would be impossible to give an exact estimate of cultivable land or the money required to redeem it until the extent and character of the restoration has been determined, it is clear that water may be diverted into the desert thirty miles west of its present limits, and cultivation extended over hundreds of thousands of feddans still containing roots of vines, and extensive remains of towns whose former importance is attested by such names as the Castle of Splendour.

If it be granted that the successive states of Lake Mœris have thus been approximately determined, the Labyrinth, according to ancient historians, is next in rank and adjacent in position. The general attention which has been directed to Egypt by the political events of the year which has intervened, the concentration of civil and military engineering ability, the creation of a special department of canals, and the appointment of an experienced Indian official as its chief, with the personal assurances I received, will rescue the Wadi Reian from the oblivion into which it has fallen, insert it in the blank desert of Jacotin and the vague shadows of Linant, and restore it to Ptolemaic prominence on the future maps of Middle Egypt. The appeal which it makes to imperial statesmanship, the imminent danger of delay and petty cupidity, will not remain unheeded.

Adjacent to the great 'sea,' and second only to Meri as a marvel of human workmanship, the Labyrinth, although as huge in structure

as a pyramid, with countless passages, each as faultless as the single entrance into 'the Lights,' and equally inexplicable to Greek and Roman traveller, is unknown.

The latest opinion of the Labyrinth is thus expressed by Professor George Perrot and M. Chipiez in their recent work on Egyptian Art:—"We are by no means sure that the ruins in the Fayoum are those of the Labyrinth. These ruins, which were first discovered and described by Jomard and Caristie, and after, wards in greater detail by Lepsius, are composed of wretched blocks of dry grey mud. The plan and description of the building discovered by Lepsius hardly corresponds with the account of Strabo and with what we learn from other antique sources as to the magnificence of the Labyrinth, and the vast bulk of the materials of which it was composed." (*Hist. of Art in Anc. Egypt*, p. 25, English ed.)

Fully concurring in this view, at which I had also arrived, it is nevertheless possible that the Stonehenge of Egypt, which could never perish, may yet be found.

If M. Mariette knew where it lay beneath the fields of the Fayoum, would he have lived without entering the 'Serapeum' of Mœris, or died without bequeathing the secret with his other official papers to a trusted associate and successor? Although a minute examination of a very considerable area in 1882, as well as in March and April, 1883, have not been rewarded with success, the search should be prosecuted with diligence. The highest archæological prize remains to be won by critical acumen, profound and varied erudition, unstinted physical labour, and "the favour of the gods." No one can claim to have found it until the lintels of Parian marble have been traversed, corridors lined with bas-reliefs, exquisite as in the tombs of the kings, have resounded to the clang of the stone doors, and statues of the earliest period, such as Dædalus made for Menas (Strabo, X, 10, 5), and realistic as the Shêkh el-Beled, are added to the overflowing treasures of Boulaq. The physical conditions of that part of Egypt, the strata of horizontal limestone, the vast blocks which line the causeway near Kom Uashim, and strew the surface of the island in the lake, or beneath which one creeps at the base of the Haram es-Schaneh closely conform to the requirements of the 'stone city.' "Deinde Arsinoe et jam dicta Memphis: inter quam et Arsinoiten nomon in Libyeo turres quæ pyramides vocantur" (El-Haram el-kaddâb, 'the false pyramid,' Meri-Tum), "Labyrinthus in Moeridis lacu, NULLO ADDITO LIGNO ædificatus, et oppidum Crialon." Incon-

siderate and incomplete excavations may do irreparable damage. M. Maspero had informed me of his intention to proceed to the Fayoum with an entire staff in October. I therefore refrained from disturbing the ground and effacing precious marks which might serve as clues, but I desire not to lose this opportunity of acknowledging the generous courtesy with which he not only gave me full permission to make a thorough examination, but wished me a success which in turn I trust may be the due reward of his own labours.

In inquiring into the site, origin, use, form, history, and traditions of the Labyrinth, it seemed a plausible conjecture that the Kretan myth was, in fact, Egyptian. If the suggestion be correct, its incidents and names may be of service in the actual discovery of a monument which was regarded as, next to Lake Mœris, the most stupendous work conceived and executed by man. In spite of the labyrinth sign on the coins of Gnossus (seventh century), the whole story of the labyrinth in Krete has been generally discredited (Hoeck, *Kreta*, I, 56). The Phœnician character of its civilization lends itself readily to the conversion of an Egyptian fact into a local fable, especially if associated with architectural features strange and even repugnant to the straight lines of Doric simplicity. Cadmus, קַדְמוֹס, *bedem*, "the East," whether merchants "in search of Europa," extending commercial relations towards *عرب*, Gharb, "the West;" or "shepherd kings" expelled by such a revolution as that alleged to have taken place under the first king of the XVIIIth dynasty; or a nobility forced to emigrate, as seems probable, by the changed political status resulting from the redemption of the Delta, protected from overflow by Lake Mœris and traversed by the canals "dug by Sesostris," carried to the Greek island ideas which tradition always credited with an Egyptian origin. Dædalus was said to have built his structure after the model of that Egyptian edifice which Pliny described as "portentosissimum humani impendii opus."

In the Egyptian Labyrinth, as late as the middle of the first century of our era, stood, according to Polyhistor, a colossal statue with the head of a bull and the body of a man. "Apion, cognominatus Plistónices, paulo ante scriptum reliquit *esse etiam nunc in labyrintho Aegypti colosseum Serapim e smaragdo novem cubitorum.*" This Serapis, corresponding fairly enough in height to the large figures in the Museum of Boulaq, and termed 'emerald,' perhaps

because carved in stone and covered with green glaze, Μανώταυρον, ὥσπερ Εὐριπίδης φησὶ.

Σύμμικτον εἶδος καποφώλιον βρέφος
γεγονέναι, καὶ

Ταύρον μεμίχθαι καὶ βροτοῦ διπλῇ φυνσει. (Plut., *Thes.*, XV).

So the great Serapis in the Fayoum may have become the monster of the Kretan fable.

The Minotaur can scarcely be considered masculine except in name. The creature devours, in the Attic tale, youths as well as maidens. Isis-Hathor, "the statue of the goddess which has the form of a woman, but with horns like a cow" (Herod., II, 41; 2, 73, R., 1875), corresponds equally well in form. Following this idea, Men-Hathor as a derivation for the word Μινώταυρος arouses suspicion, and challenges scrutiny only by the extreme closeness of the resemblance. "The tendency of the Greeks to claim an indigenous origin for the deities they borrowed from strangers, and to substitute physical for abstract beings" (Sir G. Wilkinson), induced or permitted them to change the sex of Forces and Objects to suit the apparent gender of the foreign word.



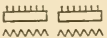
In this way the bearded sphinx became the full-bosomed figure of Hadrian's villa, and the Andro-lion the woman defeated by Œdipus. The conversion of the 'cow-headed' wife of Osiris into a neutral monster is not a serious difficulty.

Men-Hathor   does not occur in any known inscription.

The sign  however, is so very common as a substantive and in compound terms, that it is not only probable that such an expression would exist, but it is even difficult to fix upon the precise meaning which would attach to it.  is not an ideograph taken from a game of draughts, but, like other rectangles, directly connected with enclosures, structures, pools, and dams. Thus  × 𓂏 *men*, is a *liquid* measure. "  *men*, μένω, Arab.  *feststellen*, u.s.w." (Brugsch, H.D.W., 636, vid. Pierret. Dict., p. 207), is also found in

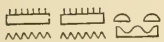
'  𓂏 *men*,' and " 𓂏  𓂏, *ta-men*," Sitz, Stelle, lieu où on reside, Kopt. , mansio, μονή. Erscheint am häufigsten in Zusammensetzungen. Whether 'district,' 'town,' or even 'statue' (p. 652), it is directly connected with Hathor in the following passage from the papyrus of Boulaq, which describes Lake Mœris :

"    MoNMoN ou MeNMeN cette localité au

Nord du Canal (ou du lac, c.-à-d., du lac de Mœris) . . . Ta-She est son nom. La contrée Monmon se nourrit de l'eau du canal de ce dieu." (Brugsch, D. Geog., p. 257.) In this nome, where the Labyrinth was unquestionably situated, Brugsch adds: "Je ne veux pas oublier que les textes hiéroglyphiques connaissent une HATHOR LOCALE NOMMÉE  MoNMoNu, la Memnonienne."

Strabo says:—"ἐν δ', ὡς φασιν, ὁ Μέρμων ἐπὶ τῶν Αἰγυπτίων Ἰσμάνεως (? Isis) λέγεται, καὶ ὁ λαβύρινθος Μερμόνιον ἂν εἴη καὶ τοῦ αὐτοῦ ἔργον, οὐπὲρ καὶ τὰ ἐν Ἀβύδῳ καὶ τὰ ἐν Θήβαις· καὶ γὰρ ἐκεί λέγεται τινα Μερμόνια."

The Minotaur therefore may with some probability fall within the category of names "which came into Greece from Egypt." (Her., II, § 50.) Dangerous as philological speculations become when pressed too far, they may be used as clues where they are worthless as argument. In the search, then, for the actual Labyrinth which has led me so often to the desert edge of the Fayoum, and induced me to scan with such anxious eye, foot by foot, the canal on which Strabo sailed beneath its massive walls, it is legitimate to hazard conjectures which may furnish points of vantage from which sound and enduring reasons may present themselves to others. Adjacent to Medinet-el-Fayoum, on the north-west, are immense mounds, the loftiest of which is known as Kom el-Faras. Faras or *Fâres*, is 'horseman' in Arabic and in Hebrew, **פרס**, **פרש** (2 Sam., i, 6), and the modern Arabic word for 'mare.' The eminent Arabic scholar Rogers Bey interprets it (see his *brochure*) as a trace of the Persian invasion of the seventh century A.D. The Egyptians, however, called a horse Hthor (*Htar*), and the Labyrinth, into which Aristides "descended" A.D. 180, may have been lost to view before the Khalifat of Omar. Men-Hathor, district, shrine, or statue of Hathor, might readily be translated Kom el-Fares, 'the hill of the mare.' Conceding that this line of inquiry is legitimate, and seeking to recover from the Kretan myth its Egyptian allusions, Theseus and his conflict are also intimated in a vignette and legend of the Boulaq papyrus.  "Cette localité, c'est celle qui se nomme **ΘεΤΘεΤ** [celle de la défaite], du côté ouest de la contrée de MONMON. C'est l'endroit du combat du dieu Horus avec Set à cause des biens (laissés) de son père d'Osiris. Le dieu solaire Rá a battu ses ennemis à lui le 23^e jour du 1^{er} mois de l'inondation [jour de l'ouverture de l'écluse du

canal de la ville Héracleópolis, compar. pl. 2]. La contrée appelée  appartient donc à la province du Fayoum. Elle est située au nord du lac Mœris." The text continues: "Cette localité sablonneuse au nord du canal (ou du lac, c.-à-d., du lac de Mœris) c'est l'habitation d'Osiris quand le dieu Set ne lui a pas fait du mal à Héracleópolis Magna [c.-à-d., quand *Set* n'a pas empêché l'eau de l'inondation d'y arriver par le canal d'Heracl.]." Brugsch, *Dict. Geog.*, p. 258.

The tribute of seven sons and seven daughters may refer to seven months of days and nights during which the water stored in Lake Mœris, adjoining the council halls of the Egyptian Barons, was a tribute levied upon Egypt, and an especial grievance to the inhabitants of the Heracleopolitan nome.

Without extending the parallel, it will be observed that the various names connected with the present Fayoum and the historical Labyrinth can be readily identified. The Gebel Sedment or Isment is the Ἰσμάνης of Strabo (p. 690, 52, Didot); and its variants, Σμάνης, F., Ἰμάνης αζ, Μάνης ω; as well as of XVII, 1, Ἰμάνης εἰ ὄνομα ὁ ταφείς (p. 689, 28), on which the note by the learned editor, Karl Müller, reads: "Μάνης, Epit., Ἰσμάνης codd. plurimi habent, p. 690, 52. Quidnam Strabo scripserit, incertum. Epitomes scripturam utroque loco reponi vult Bunsen."

Diodorus says: "Αἰγύπτιοι . . . κατέστησαν ἐρχάριον βασιλέα Μένην ὃν τινες Μάρρον προσονομάζουσιν. Οὗτος δὲ πολεμικὴν μὲν πράξιν οὐδ' ἡντιοῦν ἐπετελέσματο, τάφον δὲ αὐτῷ κατασκεύασε τὸν ὀνομαζόμενον λαβύρινθον." LXI, 1; and Sec. xcvii, 5.

Pliny gives Petesuchus as its founder, the equivalent of Pta-Sevek, the "mouth of the canal," which led to "Crocodilopolis," where 'Suchus,' that is Sebek or Subek, a crocodile, with the Greek ending -os added, was kept in the temple tank. Tithoes may be Ta-Shet. Lykeas assigned it to Moeris ( mer, cours d'eau. (Br.) Lac. Pierret, *Dict.*, p. 220; cf. Μάρρον, *supra*).

Besides these passing allusions, in which lines of investigation are merely hinted, it may be proper to add that Hebrew tradition distinctly connects the 'corvée' of the Beni-Israel employed at Pithom (Exod. i, 11) with the vast engineering works ascribed to all the Pharaohs, and especially to Amen-em-ha III. The eminent Arab Sheikh who replaced Dr. Spitta, in April, 1882, as librarian of the Khuttubkhaneh, told me that the traditions which ascribe the Fayoum and its canal to the Patriarch Joseph were of the remotest

antiquity, and he gave to them entire credence. When "there arose up the new king over Egypt which knew not Joseph," the children of Israel had multiplied beyond the scanty limits of Goshen, "and the land was filled with them." The LXX say they were employed on the public works (ἐν τοῖς ἔργοις) and that ὑποδόμῃσιν πόλεις ὀχυρὰς τῇ Φαραί, τῇ τε Πιθῶν, καὶ Ῥαμεσσή, καὶ Ὠν, ἣ ἐστὶν Ἡλιοπόλις.

The Hebrew text has מִסְכָּנוֹת לְפָרַעָה אֶת־פָּתָם וְאֶת־רַעְמִסִּס but the addition of "On, which is Heliopolis," makes it probable that they were employed on the great constructions from Gizeh at Bab el-On, to the statues of Isis and Osiris, which stood upon the island in Mœris. The 'urbes tabernaculorum' of the Vulgate were, as the Italian puts it, 'maggazini.' The increase of the population necessitated and permitted fresh basins for the storage of Nile water, and additional granaries, the 'horrea Josephi' of mediæval tradition. The Syriac also has it, "extruebant civitates, horrea Pharaoni, Pithon et Raamsis."

On such a point the Arabic version is entitled to the greatest respect. Saadia ben-Joseph was born in the Fayoum, "l'ancienne Pithôm, dans la haute Égypte, l'an 4652 de l'ère juive de la création (892 de l'ère chrétien); il porte de sa ville natale le surnom 'd'Alfayyoumi,' אֶל־פִּיּוּמִי, ou en hébreu Happithomi, הַפִּיתוּמִי," as Munk states in his "Notice sur Rabbi Saadia, Gaon": Paris, 1838.

Saadia writes—^{شَمْس} ^{فِي} ^{الْفَيُومِ} ^{وَفِي} ^{عَيْنِ} ^{شَمْس} "aedificavereuntque civitates, horrea Pharaoni, in Phaium et Ain-Semes."

Pi-Tum and Ra-Meses are words of description rather than names. Why should not the Israelites have been employed in some portion of the Mœris basin in averting starvation from a redundant population, by extending a lake "whose use was admirable, and the greatness of the work incredible?" (Diod., I, IV.) Chronology plays no part. For "who is he therefore that considers the greatness of this work, that may not justly ask the question, how many ten thousand men were employed, and how many years were spent in finishing it? Considering the benefit and advantage brought to the government" (by this great work), "none ever could sufficiently extol it, according to what the truth of the thing deserved." (Diodorus, by Booth, p. 56.)

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